BOSTON MEDICAL LIBRARY IN THE FRANCIS A. COUNTWAY

Is Moderate Drinking Injurious?

By Dr. Andrew Wilson. See page 180.

The Use of Arsenic by Women. See page 185.

HEALTH

A WEEKLY JOURNAL OF

DOMESTIC AND SANITARY SCIENCE.

"Reason's whole pleasure—all the joys of sense—
Lie in three words, Health, Peace, and Competence."—*Pope.*

EDITED BY DR. ANDREW WILSON, F.R.S.E. &c.

Vol. XI.—No. 272. FRIDAY, JUNE 22, 1888. [Price Twopence.

BRAND & CO.'S
INVALID
SOUPS,
Potted Meats,
PRESERVED
PROVISIONS, ETC.

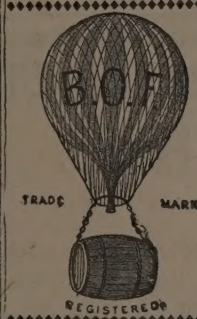
BRAND & Co.'s
A1 SAUCE.

A fine Tonic and Digestive.

An excellent Relish for
"Fish, Flesh, or Fowl."

BRAND & Co.'s
PRESERVED PROVISIONS SOUPS &
SPECIALTIES FOR INVALIDS
ESSENCES of BEEF, MUTTON, VEAL & CHICKEN, BEEF TEA, TURTLE SOUP & JELLY, MEAT LOZENGES &c.
SOLE ADDRESS No. LITTLE 11, STANHOPE ST. MAYFAIR, W.

Under the direct Patronage of the British, United States, Canadian, and other Governments.



Beer of the Future.

SPECIALITY FOR THE

DYSPEPTIC, RHEUMATIC, AND BILIOUS.

IN 18 GALLONS, ONLY 24s., direct from the Brewery, Carriage Paid.

BAXTER'S BREWERY,
Thornton-le-Moor, Northallerton.

Friehmelt's
COCA-
and
Cigarettes
Tobaccos.

Supremely Delicious! Most Exquisite Aroma!

TOBACCO AND CIGARETTES

STRENGTHENS WEAK HEARTS.
ABSOLUTELY FREE FROM NICOTINE.

The only Tobacco which is Non-Enervating, and recommended by the Medical Faculty. Smokers can now enjoy the pleasures of the weed and feel Healthier and Stronger after its use.
Cigarettes, 8s. per 100; £3 6s. 8d. per 1,000. Second quality, 6s. per 100; £2 12s. 8d. per 1,000.
Packets of 20, 2s.; second quality, 1s. 6d.
Tobacco, strong, medium, or mild, 2-oz. packets, 1s. 6d.; or 10s. per lb., from 3 lbs. and upwards.
Sole Consignees for the United Kingdom and the Colonies—
THE FRENCH HYGIENIC SOCIETY, 56, CONDUIT-ST., REGENT-ST., LONDON, W.

TRADE MARK. "SANITAS" TRADE MARK.

DISINFECTANTS

(FLUIDS, POWDER, SOAPS), Non-Poisonous, Pleasant, and Best.

Used by more than 1000 BOARDS OF HEALTH & HOSPITALS. GOLD MEDALS—CALCUTTA, 1883-4; PARIS, 1885; ANTWERP, 1886.

OF CHEMISTS GROCERS, OILMEN, AND STORES.

The "SANITAS" COMPANY, Ltd., Letchford's-buildings, Bethnal Green, London.
SOLE MANUFACTURERS ALSO OF "KINGZETT'S BACTERICIDES."

Nos. 1-156 (excepting Nos. 38 and 39) may still be had, price 4d. each. Nos. 157 to date, price 2d. each.

Indexes to Vols. I., II., VI., VII., VIII., IX., X. can be had, price 2d. each.

READ THIS TWICE!

AN INVITATION TO WEAK MEN.

BEFORE you waste your time and money on nauseous drugs and quack medicines, Mr. C. B. HARNESS (President of the British Association of Medical Electricians) invites you to pay a visit to the Electropathic Establishment, 52, Oxford-street, London, W. (corner of Rathbone-place), where, by means of experiments and testimonials, he will be able to prove to you conclusively that his world-famed Electropathic Treatment is certain to cure, and has cured, the most obstinate cases of Nervous Exhaustion, Physical Debility, Hypochondriasis, Melancholia, or any sign of Premature Decline of Vital Energy, consequent upon over-strain. Harness' Electropathic Treatment needs only to be more widely known to be universally adopted, and it is for this reason that we are now advertising so largely. The surest proof we have of the success of our Treatment is that almost every patient who has adopted it has introduced several other sufferers. Harness' Electropathic Treatment has also relieved and cured hundreds of men and women suffering from rheumatic affections, indigestion, constipation, liver and kidney diseases, &c., and is the most natural and certain means of obtaining health, strength, and vital energy. Pamphlet and advice free of charge. Residents at a distance, and those unable to call at 52, Oxford-street, London, W., should write at once for private advice form. All who wish to be well and keep well should wear Harness' world-famed Electropathic Belt. Note the address carefully, lest you forget it, and call or write at once to Mr. C. B. HARNESS, Consulting Medical Electrician, the Medical Battery Company (Limited), 52, Oxford-street, London, W. (corner of Rathbone-place). All communications treated as strictly private.

HARNESS' ELECTROPATHIC BELT.

THE ONLY GUARANTEED GENUINE CURATIVE ELECTRICAL APPLIANCE.

PAMPHLET AND ADVICE FREE.

1886.
GOLD MEDALS
AT
EDINBURGH AND LIVERPOOL.

HEALTH AND STRENGTH
SECURED BY

FAROLA,

A WHOLLY unadulterated preparation of wheat, and hence the most perfect family food, because it "contains all the elements necessary for the sustenance and growth of the human frame." A luxury at the table, because dishes made from it surpass the finest arrowroot in elegance of appearance, as well as delicacy of flavour and nutritive properties.

FAROLA is highly recommended by the medical faculty, and all the leading medical journals, because it is so easily digested that the system readily assimilates it, when other foods are rejected. An agreeable variety in the nursery dietary, since children take it with avidity. Awarded two gold medals. Supplied to H.R.H. the Prince of Wales. Avoid advertised imitations of this, the "ORIGINAL," article. Order through your Grocer or Corndealer; or forward SEVEN STAMPS to the proprietor, JAMES MARSHALL, 24, Pimlico-road, London, S.W., and you will be supplied with a LARGE SAMPLE PACKET, together with an interesting Pamphlet of 80 pages, containing numerous Cookery Recipes, which no household should be without. Please name HEALTH when writing for samples.

HUTTON'S
FOOT POWDER
Is Guaranteed Effectual and Harmless.
Easily applied and Cleanly.
Enables New and Tight Boots to be worn with Ease.

NO MORE TENDER FEET

PREVENTS ALL CHAFINGS, GALLS AND UNPLEASANTNESS.

In Tins at 1s. and 6d., Post Free (under cover), Fifteen or Eight Stamps. Samples, Two Stamps, of

TYLEE & CO., 7, BRIDGE-STREET, BATH.
LONDON: BARCLAY, and through all Patent Medicine Vendors.

THE PRINCE OF TABLE WATERS.

PITKEATHLY.

AS a Table Water it has no rival; and, unlike all other Saline and Aërated Waters, it is not depressing, but tonic in its effects. A natural appetiser, delicious to the palate, and has the exceptional advantage when mixed with Whisky, that it not only retains the flavour of the spirit, but renders it soft and mellow.

EACH CORK IS BRANDED REID & DONALD, PERTH.
EACH BOTTLE SHOULD BE LAID ON ITS SIDE IN A COOL PLACE.

To be had of all Wine Merchants and Chemists.

Agents:
The Professional and Civil Service Supply Association, St. Andrew's Square, Edinburgh.

LONDON AGENTS—
MESSRS. INGRAM & ROYLE, 52, FARRINGDON-ST., E.C.

◆ HEALTH ◆

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, JUNE* 22, 1888.

CONTENTS OF No. 272.

	PAGE
Notes by the Way: By the Editor.	177
Original Essays:—	
Scurvy and its Prevention. By M.D.	178
Is Moderate Drinking Injurious? By Dr. Andrew Wilson. Second Article.	180
"Like Begets Like." By Dr. E. J. Dungate. Twelfth Paper.	181
Personal Health:—	
New Drugs for Fevers	183
Facts about Opium. By G. Winterburn, M.D. Second Paper	184
The Family Circle:—	
The Use of Arsenic by Women..	185
Healthy Houses:—	
Damages for Infection	186
Public Health:—	
How to Ward off Infectious Diseases	187
A New Invention in Clothing	188
IMPORTANT ANNOUNCEMENT	189
Our Letter Box:—	
Letters to the Editor:—Health for the People—Thunderstorms and Lightning Accidents..	189-190
Queries and Answers:—Replies: General, Sanitary, and Medical.	190

Notes by the Way

BY THE EDITOR.

Health is the foundation of all our physical happiness."—*Herder.*

IT has often been a question how far pain is a relative matter—that is to say, how an equal amount of suffering of physical kind affects different individuals. Doubtless no exact results can be attained in such an enquiry, save the general idea that certain constitutions are much less affected by severe pain than others. A contribution to the history of this subject has recently been made by Dr. James Edward Neild, who, in an Australian medical journal, describes a case at length in which a man, aged 36, swallowed a German silver fork in February, 1887, from the effects of which feat he died in September 1887, or seven months later.

✣ ✣ ✣

HE was admitted to an asylum on March 9, 1886, aged, then, 35—his affection being melancholia. On the day of his admission the blade of a pocket-knife was removed from the umbilicus, which had apparently entered the cavity of the abdomen. He had also inserted a darning-needle through the same place, and had previously swallowed a pound of paint. Beyond some pain referable to the abdomen, caused by change of position, he never suffered in any way. He regained his health, and went out on two months' probation to his friends, but returned two months later.

✣ ✣ ✣

ON Sept. 20 he stated to Dr. O'Brien, superintendent of the Hospital for the Insane at Kew, that he had swallowed a fork in the month of February last. On examination there was marked dulness over a space, limited by the cardiac (or heart) area, both anteriorly and posteriorly; the liver dulness was increased towards the left side, there was pain referable to the right shoulder, and evident distress on examining the abdomen. He died on the 22nd. The *post mortem* examination was made on the 23rd, disclosing severe results of internal inflammation. A much oxydized sewing needle, 2½ inches long, was inserted in the upper part of the great omentum.

✣ ✣ ✣

ON opening the stomach the handle of a German silver dinner fork was observed. The prong end was through the pylorus or intestine-opening of the stomach, and it was firmly stuck, to the extent of two inches, into the anterior portion of the lesser lobe of the liver. It was so firmly fixed that it required to be cut out. The liver generally was much congested. All the rest of the organs were normal. The interesting part of the case, says the account from which I quote, was the tolerance by the patient of a large foreign body in this locality without any symptoms showing themselves to indicate its presence.

✣ ✣ ✣

EXAMPLES of the insensibility of the insane to pain and inconvenience were also given in cases of phthisis, peritonitis, fractures, burns, mutilation, indifference to heat and cold, &c. In about 200 *post mortems* made by Dr. Henry Sutherland, cancer of the pylorus, peritonitis, innumerable stones in the gall bladder, distended intestine, the presence of buttons, pieces of towelling and clothing in the intestines have occasionally been found. During life he observed indifference to pain in one patient when the soles of the feet had been burnt raw by exposing them voluntarily to the fire. In another the same apathy when she bit off the joints of her fingers one by one, and in a third a persistence in walking with recently fractured bones of the same leg.

✣ ✣ ✣

IT would appear that "society" is much in need of instruction in the hygienics of the skin, as evinced by the following remarks which a correspondent of *Truth* has addressed to the editor of that journal. "You ought really to call attention," says the correspondent, "to the dangers that young ladies incur in painting their faces. The custom has increased, is increasing, and ought to be diminished. Let any one narrowly scan the girls he comes across in the park at from 12.30 to 1.30. If he does so, he will soon perceive that nine-tenths of them are painted and dyed. Their faces and their necks are

"THE TASTELESS APERIENT."

HUNGARIAN NATURAL MINERAL WATER.

The Salts of ÆSCULAP contain 90 per cent. of purgatives.

HIGHEST AWARD
AT THE
INTERNATIONAL MEDICAL EXHIBITION, London, 1881.

Æsculap

"This Water contains the SULPHATES OF MAGNESIUM AND SODIUM in unusually large quantities. IT IS AN ADMIRABLE APERIENT WATER—one of the most powerful, indeed, that we have examined, and may be used with perfect confidence."—THE LANCET, *Sept. 26th*, 1885.

SOLE AGENTS:
INGRAM & ROYLE, London, Liverpool, & Bristol.
AND OF ALL CHEMISTS.

whitened with a lotion, their cheeks are rouged, their eyebrows and eye lashes are darkened, their hair is dyed, and their lips are reddened.

✣ ✣ ✣

"Now let him observe those of the fair sex who are above thirty. What will he see? That they are blue. This is the result of washes, and rouges, and powders, with a metallic basis. I suppose that no girl, desirous as she may be to add to her charms, is anxious to develop into a blue woman in a few short years. If, therefore, she must paint, I would advise her to rub some sort of grease over her face before putting on rouge or powder. The grease closes the pores, and mitigates the ill effect of the subsequent operations. It has, too, the advantage of rendering the powder less apparent. Some of the park girls really look as though they had plunged their faces into a sack of flour before coming out."

✣ ✣ ✣

THAT phrase "park girls" is really, in its way, a masterpiece of description. It admirably describes the feminine nobodies whose sole missions in life appear to be those of eating and drinking, and sleeping, with a modicum of lawn-tennis, balls, and other amusements thrown in to give a zest to the vegetative vitality which such persons exemplify. The workers in life are far too sensible to paint and powder their faces, or to imitate the ways and works of the Aspasias of the day. There is an intimate connection between a lax view of life and its purposes, and all such vain show as the ghastliness of paint and powder illustrates. Women, who find and make life both real and earnest in any sense, must pity and despise the crowd of their companions to whom the pervading animal instinct of personal decoration, carried out even to the savage custom of face-painting, represents all that is "fashionable," and, therefore, all that is worth living for in these days of fastness.

✣ ✣ ✣

I MIGHT suggest that a health-mission to the "park girls" could be undertaken with advantage. If any one thinks this idea worth putting into practical shape, I would recommend them to prepare a leaflet or tract, for distribution among the painted and powdered damsels described in *Truth*, wherein the history of the beautiful Misses Gunnings could be detailed. These young ladies were the belles of Hyde Park during part of last century, and so beautiful were they, that they were actually mobbed—so history says—by their admirers. One of the sisters, however, died of a cancerous disease of the face, produced by the over-free use of the paints and washes, which in those days, as in our own time, appear to have been used to "adorn" the beauty of the fair sex. The fate of the beautiful Miss Gunning may not, perchance, be that of the modern "park girl," but that the latter injures her skin by her cosmetics is a fact to the reality of which every specialist in skin-diseases can fully testify.

✣ ✣ ✣

THE following revelations concerning the miscellaneous items which may be included in a neglected cistern should serve as a warning to householders who neglect to have these receptacles regularly cleaned. At a recent meeting of the Hornsey Local Board, the sanitary inspector reported that he had examined the cistern which supplied ten cottages in North-road, Highgate, with drinking water, and found it in a fearful condition. The bottom was covered with thick slime, and he found in it a quantity of whelk shells, a number of dirty jars, a mouse-trap, a large portion of a domestic utensil, an Italian iron, a quantity of iron hooping, a piece of soap, a lump of rotten wood, and some brown paper.

Original Essays

"Life is not to live, but to be well."—*Martial.*

SCURVY AND ITS PREVENTION.

BY M.D.

SCURVY is a disease tolerably familiar by name to the public, and, unfortunately, well-known by its occurrence in both armies and navies, as well as among other communities and collections of mankind. It is also in some respects a disease of historical fame. Pliny alludes to it: while Captain Cook, in his first voyage (1772-75), proved that this disease, which had literally disabled ships' crews from time immemorial, was a truly preventible disorder. Within the latter half of the last century scurvy ran riot among our seamen and troops, often proving extremely fatal in its ravages. The principles on which Captain Cook had pointed out the cure, or rather the prevention, of scurvy could be founded were simple in the extreme. When a diet whereof fresh vegetables or vegetable juices formed a prominent part, was substituted for the erroneous food on which the scurvy-attacked units had been fed, the disease vanished away, or did not appear at all.

Anson, the circumnavigator, who sailed before Cook's day, lost 600 men out of 900, chiefly from scurvy; while in Captain Cook's first voyage, out of 118 men, only 4 died: 3 from consumption and 1 from the effects of an accident. The compulsory carrying of a supply of lime-juice by all sea-going vessels has been the outcome of Cook's teaching. Scurvy has passed, in other words, from among the ailments of mystery, into the category of preventible diseases. The topic of scurvy in itself includes valuable teaching regarding foods at large, and a recently published paper by Dr. J. Hickman of the Army Medical Staff, has served to direct attention anew to the disease.

The symptoms of the disease are marked by weakness, debility, an offensive breath, sallow complexion, and blotches on the legs. The temperature of the body is lowered, and the mind is depressed. A characteristic sign is found in the development of sponginess of the gums, which bleed on being touched or pressed. Later on, the teeth may drop out, and there may be ulceration of the legs. Any slight injury—a bruise or knock—may cause an ulcer to develop. General dropsy, or a more limited attack of that ailment (in itself a result rather than a cause) may supervene; and in fatal cases death seems really to supervene from general exhaustion.

The symptoms of the disease are thus of plainly-marked character. The exact cause of scurvy is more difficult of apprehension. Authorities agree in referring the cause to blood-changes, connected primarily and usually, as has been remarked, with errors in diet. Dr. Garrod maintains that the essential cause of scurvy is a deficiency of potash compounds in the blood, through these minerals being insufficiently supplied in the food. Yet it is a notable fact that beef tea which contains these minerals in quantity does not cure scurvy, while potash administered as a medicine fails as a mode of treatment. It may be that the minerals contained in the vegetables (cabbage, cress, &c.), which are noted for the cure of scurvy, are presented to the system in the special form found in the living plant-tissues—a form not imitated exactly or precisely by the beef-tea or the potash administered as a drug. The fact remains that such vegetable-food does both prevent and cure scurvy, and, in the face of this informa-

tion, our explanations of the cause of the disease must be modelled and framed accordingly. It is held by some physicians that scurvy is caused by an excess of common salt (or chloride of sodium as it is chemically named) in the blood, as well as by an undue increase of other chlorides, at the expense of the potash compounds. This being so, we may understand why a salt-meat dietary may cause scurvy, and also why vegetables which are rich in potash should cure or prevent it. The country labourer's dinner of salt beef, with its accompaniment and garnishing of fresh boiled cabbage, is a scientific enough diet, the *rationale* of which has been worked out in the labourer's history, not by science, but by that experience which is, after all, often our best and sternest teacher in the ways of healthy life.

Dr. Hickmans, speaking of scurvy in the British Army, tells us that "In the Army Medical Department Report for 1883, the Surgeon-General, Bengal, remarks in reference to ninety-five cases and six deaths from scurvy and purpura, that during the year there was a very large (proportional) increase in the number of admissions for both these diseases. The admissions for scurvy were four times as numerous as in 1882, the rate of sickness for both diseases being 2·8 per 1,000, and the death-rate ·17 per 1,000. The increased prevalence of scurvy is apparent only, being consequent on an increased recognition of the disease. At Rhanikhet the medical officer recommended the issue of four ounces of fresh vegetables daily to each man, in addition to a pound of potatoes, on the ground of the prevalence of scurvy amongst the men at the station during the year. At one time (the average annual strength of non-commissioned officers and men being 463) 247 suffered from this affection, usually in a slight form. The very exceptional prevalence of the disease was consequent on the malarial illness from which most of the men had suffered. Even after two months of lime juice, fresh vegetables, and fruit, it was considered that 200 men of the battalion quartered at the station were not fit to march to Meerut on account of weakness consequent on scorbutic taint.

"In 1884, in Bengal, scurvy and purpura were the causes of 79 admissions, the rate 2·3 per 1,000, being nearly equal to that in 1883. In 1885, scurvy caused 112 admissions (3·2 per 1,000); 32 cases occurred at Rorkee among the men of a draft recently from home, the outbreak being attributed to deficient vegetable ration on board ship. Though statistics depend on individual opinion, diseases are often classed under any particular term to satisfy the requirements of returns or rather the caprices of authority, the above may be quoted as a possible incident in the present history of troops in India. In the Egyptian expedition of 1882 there was only one case of scurvy recorded in the force. So also in the medical history of the Soudan frontier field-force, only one case is included amongst the admissions. In Burma (1886-87), although there were few cases of pure scurvy marked in the returns, many admissions into hospital exhibited unequivocal signs of the disease."

It is highly interesting to note that our author takes a wider view of the *causes* of scurvy than is generally held. He insists that the vegetable diet is not the only thing to be considered as preventive of the disorder. As predisposing causes of the ailment, Dr. Hickman places privation and hardship among bodies of men in the first place. Then succeed cold and damp, as illustrated in the trenches in the Crimea, and the appearance of scurvy in Indian jails at the commencement of the cold season. Impure water, tainted meat, and mouldy bread, by lowering the system may lay open the constitution to attack. Insufficient exercise is also to be reckoned with in estimating the probabilities of a scurvy-outbreak, and "sameness of diet is not to be forgotten among its causes." Speaking of salt food as a cause, our author adds that "the development of scurvy is also favoured by a salt-meat diet. In the process of salting some of the albumen of the meat is precipitated, and in this way much nutritive power is lost; besides which, salt in excess entails a certain waste of tissue in the animal body; and consequently in this class of diet these properties tend to have a doubly injurious effect."

Naturally, however, we turn with interest to learn Dr. Hickman's views regarding vegetable diet in the prevention and treatment of scurvy. He reminds us that scurvy may occur with a fair supply of vegetable diet. "It is difficult," he continues, "definitely to state what are the essential salts or bodies on the presence or absence of which the scorbutic condition depends, and it is not proposed to discuss the question here. Generally, it may be asserted that as long as potatoes or fresh vegetables of any kind are supplied to men in proper amounts scurvy will not appear; the most varied and liberal diet from which these substances and the potassium salts of the vegetable acids are absent is not sufficient to guard against its onset. The best preventives or remedies are found be be fresh succulent fruit, as oranges, lemons, citrons, apples, pears, &c. Next, any variety of green food (the Cruciferæ especially): plenty of fresh soft vegetables should be recommended, potatoes, cabbages, and spinach being probably the best. Water-cress, garden-cress, mustard, scurvy-grass, and various other vegetable products have also obtained repute in this respect. Dried or preserved vegetables have a feebler action, but are efficient and must be employed if the more reliable articles cannot be obtained. A few of these points may be emphasised. Succulent vegetables should be selected; cabbage when well preserved or pickled possesses powerful anti-scorbutic qualities. It may be remarked that in the autumn and winter when cabbage is the prevailing green vegetable, and when soldiers get tired of it and do not eat it, the best thing is to see that vegetable soup is given frequently. Beetroot can be usually obtained, and is an efficient substitute. When such necessary ingredients of a diet cannot be obtained, the best substitutes are lime-juice, lemon-juice, and in a less degree solutions of various vegetable acids, especially citric and phosphoric acids; raw meat and seal's flesh are stated to have also been successfully employed. The evidence collected indisputably proves that lime and lemon-juice are the best and most convenient prophylactics against scurvy. Such are the dietetic measures which should be taken to prevent the advent of scurvy."

The moral of this interesting recital is found in the recommendation that soldiers should be encouraged to grŏw vegetables whenever that practice is at all feasible. In the army of the United States, soldiers' gardens are notable features, and Dr. Billings attributes the decrease of scurvy among the American troops to the use of vegetables grown by the men themselves. Potatoes, it is recommended, should not be peeled before boiling, that their juices may be retained. Oatmeal, where scurvy threatens, is preferable to biscuits and preserved meats. Vinegar is "a recognized antidote, and may be classed as a chemical food"; while it serves to render vegetables more palatable. Pickled cabbage and onions are to be given where fresh vegetables cannot be procured.

Inferior lime-juice is worse than none, seeing that it

is not merely unfit for food, but causes nausea by the attempt to swallow it. Among foreign fruits, Dr. Hickman mentions with approval the green mango and the "amchur" made from it, some of the gourd tribe (the kukree-squash, pulwal, &c.), the tomato, peaches, custard apples, the wild artichoke, and sorrel. Citric acid or citrate of potash, vinegar, and nitrate of potash are mentioned as substitutes for vegetables; and if milk is used, it should be allowed to turn sour, and the acidity corrected with carbonate of potash.

Such are the main details of an interesting study in the history of scurvy and its prevention.

The mercantile marine and navy regulations recommend the administration of one ounce of lime juice daily to each man, commencing ten days after the vessel has left its port. Professor Charteris questions alike the efficacy of this treatment and the value of "preserved lime juice" as a scurvy preventive. Lime juice, he adds, as the result of enquiries made on behalf of the Board of Trade, neither prevents scurvy nor cures it when it has begun. In cases investigated by him, the monotony of the diet seemed responsible for the outbreak, and he adds as a query, "Is the lime juice sufficiently fortified by 11 per cent. of alcohol to retain the antiscorbutic properties which undoubtedly it possesses when fresh, during a long voyage, chiefly in warm latitudes?" To the solution of this query it is to be hoped our administrators will turn their earnest attention.

Finally, for the public, the lessons of the subject are found in the advice to make free use of fresh vegetables as articles of daily consumption, and to vary the monotony of the daily food—two points in the diet of all classes requiring, I think, increased care and attention.

IS MODERATE DRINKING INJURIOUS?

BY DR. ANDREW WILSON.

SECOND ARTICLE.

IN his reflections upon the practice of "nipping," that is, of taking alcohol between meals,—or "pegging" as it is called in the East—Dr. Harley is very justly severe. The public-house loafer is a "nipper," as also is the young man, of better class society, who lounges over a bar, and drinks nip after nip of whisky or brandy, while he pours his inanities into the ear of the modern Hebe. Our author styles this "the most pernicious of all forms of drinking," and he is within bounds in so styling it. I question, however, whether the "nipper" is not in reality more often a drunkard than a moderate drinker. The habit of nipping is an insidious one. It resembles, in a measure, the habit of morphia-drinking. Small doses, often repeated, may, I think, be held to constitute, strictly and legitimately, drunkenness. The man is sober in one sense, but not in another, and his tissues are in truth in danger of becoming alcohol-logged, and of exhibiting the degenerations which attend the fatal work of chronic alcoholism.

Dr. Harley affirms that the "nipper" does far more injury to his constitution than does the man who consumes a larger quantity of alcohol at meal times; but our author's "nipper" in this case is really a very favourable example of his species. For, according to Dr. Harley's example, the nipper he exemplifies indulges in a single glass of sherry in the forenoon, a brandy and soda in the afternoon, and a glass of whisky and water in the evening. I am afraid this is an unfortunate illustration of the "nipper." I should be inclined, frankly speaking, to rank Dr. Harley's specimen, if not among the "moderates," at least on the borderland of that class. The typical nipper of the classes Dr. Harley quotes is really a far more extravagant drinker than he seems to imagine. He cites commercial travellers (who, by the way, are fast becoming a very temperate class of men), brewers, innkeepers, publicans, vintners, barmen, and waiters, as examples in support of his statistical conclusions. It would, therefore, seem to vitiate Dr. Harley's own views as to what constitutes a "nipper" to limit the potations to one sherry, one brandy, and one whisky per day. The class of men who so indulge are not the persons of whom Dr. Harley's conclusions hold true. A little research conducted at any well-known public-house or bar would supply some instructive facts regarding "nippers" in relation to the quantities of alcohol they consume. Dr. Harley's views, therefore, if, as seems evident, they are to be illustrated by publicans, barmen, and the like, must be held to apply, not to the man with his glass of sherry in the forenoon and his whisky and water at night, but to the man who more or less drinks all day. In this light I question whether Dr. Harley's "moderate drinker" should be classified as such at all.

The true comparison, then, is between habitual drinkers between meals, and those whose occupations do not expose them to the temptation of forming such a habit. The effects of "nipping," thus viewed, on the liver and kidneys are first considered. "Seeing," says Dr. Harley, "that the average amount of drunkards is much about the same in all industries, when it is considered on such a vast scale as over the whole nation's strength I scarcely think anyone will doubt the trustworthiness of the results as revealed in the subjoined tables."

Death-rate of Men between the ages of 25 and 65.

Men exposed to the temptations of "nipping."	Liver diseases.	Urinary diseases.
Commercial travellers	61	44
Brewers	96	55
Innkeepers, publicans, vintners, barmen, and waiters	240	83

The comparative death-rates of men of the same age engaged in other industries, not exposed to the temptation of "nipping," are, again, as follows:—

Death-rate of men not exposed to the temptations of "nipping."	Liver diseases.	Urinary diseases.
Gardeners and nurserymen	18	39
Printers	28	30
Farmers and graziers	41	31
Drapers and warehousemen	35	37

These are telling statistics not against the "moderate" man as I have defined him, but against the "nippers." Baer is next quoted regarding the "probabilities of life in persons exposed to the temptations of 'nipping' compared with that of those not liable to be so tempted." "The following is extracted from his table of Prussian statistics, and I arrange them for the sake of easy comparison in two parallel columns, showing the probable duration of life calculated at different ages:—

PROBABLE DURATION OF THE LIFE OF MEN.

Age.	In the liquor trade	Not in the liquor trade.
25	26·23	32·08
35	20·01	25·92
45	15·19	19·92
55	11·16	14·45
65	8·04	9·72

The results here are again instructive, and tell a tale which is very strongly in favour of the virtue and benefit of temperance."

As regards liver-diseases, the statistics are notable

enough. Our author gives an extract from the Registrar-General's tables of the comparative mortality from liver-diseases in different industries, between the ages of twenty-five and sixty-five, in the years 1880-1-2, which exhibits the matter in a stronger light than any words of mine can possibly do :—

Bookbinders	3
Booksellers	4
Hatters	9
Tobacconists	10
Druggists and printers	18
Gardeners and miners	19
Butchers	21
Fishermen	22
Brewers	42
Innkeepers, publicans, vintners, waiters, and barmen	197

This result is designated "appalling" by the Registrar-General. The proportion of liver-diseases is six times greater among the "nippers" than in men concerned in all the other industries together. The actual figures, says Dr. Harley, are for brewers, 1361 ; for vintners and other salesmen of wines, spirits, and beers, 1521 ; and for waiters and barmen (those most exposed to temptation), no less than 2205. Whereas, for maltsters, who are only concerned with the materials from which intoxicants are manufactured, and not with the intoxicating liquids themselves, the death-rate is only 830.

These results are striking enough, but they certainly deal, let us remember, with individuals whose participation in alcoholics is of more than moderate kind. It is true, as our author notes, that all "different effects originating in identical causes are but relative." This very remark, however, leads us to observe that the same idea of relativity extends to individual constitutions and to the innumerable variations in the circumstances of different lives.

That such participation in alcohol is a frequent cause (among the classes referred to) of liver and kidney-disease is most true. Here Dr. Harley speaks with all authority, and his words should be pondered over by every person addicted to alcohol in any quantity indeed. "Although it may at first sight appear strange that the liver, of all the organs of the body, should be most potently affected by moderate drinking," says our author, "I think one can scarcely be surprised at this if he is acquainted with the peculiar action of alcohol introduced into the liver by the portal vein. For it requires, I think, but a small amount of reflection on the part of those acquainted with the mechanism of digestion to understand how alcohol, when taken into the stomach, even in small quantities at a time, is a powerful agent in the production of hepatic disease. Seeing that most of the liquid products of our food are carried directly from the intestines to the liver by the portal vein, it consequently follows that almost every drop of the alcohol, be it small or be it great, taken into the stomach must be directly conveyed by the portal vein to the liver, and compelled to filter through its tissues before it can possibly get into the general circulation and reach any of the other organs of the body. The knowledge of the fact that all the imbibed alcohol is directly conveyed to the liver by the portal circulation, not only gives a clue to why alcoholic stimulants are so prone to induce hepatitis, as well as to increase the formation of sugar and aggravate diabetes, but to bring about an attack of gout, seeing that the liver is regarded as the main source of both sugar and uric acid—the supposed gout-forming material. In addition to which, the direct conveyance of alcohol to the liver affords us a reasonable explanation of why alcohol taken along with the food is so much less detrimental to the constitution than when it is taken on an empty stomach. Moreover, it is now a well-known fact that the continuous excitement of the liver kept up by habitual "nipping" is far more injurious to its functions than an occasional outburst of drunkenness followed by intervals of strict sobriety. It equally accounts for the fact that the liver is not alone the first organ of the body that becomes affected, but is at the same time the one most seriously disordered by moderate drinking."

As regards the kidneys, it is stated that alcohol taken in small quantities affects them less powerfully than the liver, because a large part of the alcohol having to pass through the liver does not reach the kidneys at all. Yet the kidneys do materially suffer beneath the strain of alcoholic indulgence. "We know that the kidneys eliminate the imbibed alcohol (from its being met with in urine), but we likewise know that alcohol, as alcohol, saturates the renal (or kidney) tissue to such an extent that I and others have been able to obtain pure alcohol from the kidneys of persons who have died intoxicated by the simple process of distillation. Besides all this, however," adds our author, "there is a special reason why the kidneys should become diseased in so-called moderate drinking ; and that is on account of the circulation being incessantly increased in them, as it is elsewhere, from the accelerated heart's action induced by the repeated imbibition of stimulants in small quantities. . . . This view of the case appears to me to give, not only the clue to the reason why Bright's disease is so particularly common among the inebriate, but likewise why transient attacks of albuminuria are so frequently met with in moderate drinkers, among both men and women. Spirit-drinking is said to be mainly instrumental in inducing the variety of renal disease named granular kidney ; while beer-drinking is, on the other hand, thought to be most potent in bringing about fatty degeneration of the renal tissues. Be that as it may, I well know, from a long experience of urinary affections, that even small quantities of alcohol habitually indulged in sometimes bring on most troublesome forms of albuminuria, without there being any well-marked symptoms of the existence of either granular or fatty degeneration of the tissues of the kidneys."

This list of diseases induced by undue participation in alcohol is, I think, more than sufficient in itself to serve as a grave warning against the indiscriminate use of alcohol, which the ordinary use of the public-house or bar illustrates—a use which, it is to be regretted, is often exhibited in circles far enough removed from these lower spheres of alcoholic indulgence.

"LIKE BEGETS LIKE."

By Dr. E. J. Dungate.

TWELFTH PAPER.

A DISTRESSING case is related by Dr. Sheppard in the *Lancet* for June 21, 1873. A woman, who came to see her husband in Colney Hatch, gave Dr. Sheppard the following narrative: "I met my husband for the first time in Australia, at a station where my father held an official post of importance. J. H. was a handsome man, who had just emigrated from England, bringing with him good introductions. He was a frequent guest at our table ; we fell in love and were married. There was no one of whom, and about whom, family inquries could be instituted. My father was pleased to see me married to a man who was devoted to me, and who has never yet been unworthy of me. We did not succeed in business, and, my father dying, we returned to England. Soon after our arrival there my husband became melan-

choly, and then I gathered from his family that both his father and grandfather had died insane, and that several of his brothers and sisters were 'very strange.' He became so unmanageable that it was necessary to place him in a lunatic asylum. Twice since then the insanity has recurred, and twice he has again been confined. I am the mother of ten children by him, the eldest of whom, seventeen years of age, is permanently insane in a county lunatic asylum. The condition of several of the others already causes me great uneasiness. I am alone, with an unremunerative business on my hands, and three children to provide for. I have no friends,' said the poor, heart-broken creature, 'but you and God.'"

George Victor Townley, who murdered Miss Goodwin, of Wigmore Grange, Derbyshire, in 1863, and was tried in Derby, Dec. 11 of that year, was, according to Dr. Forbes Winslow, "palpably unable to distinguish between right and wrong, good and bad." Dr. Hitchman said in his report, however, that he could do no more than infer a proneness to insanity, and his chief reason for going so far as this was the fact that many of his relatives had died of acute mania. Professor Laycock said to his class: "If I might venture an opinion on the facts of Townley's case, I should incline to say he was insane." Townley was sent to the Bethlehem Hospital for the insane, or Bedlam, as it is commonly called; but finally he was punished with penal servitude for life. Knowing that there was in this man an hereditary taint, one cannot help supposing that the mental shock, which he suffered when jilted, was sufficient to develop it so far that he was no longer responsible for his actions.

In 1884 a young man, called Blin, was sentenced to death for the murder of a servant in the Palais Royal. The French papers noticed that when the sentence was passed he laughed nervously. This young man was born in the Department of the Yonne, and M. Paul Bert, who was staying there, determined to investigate the case. The result of the investigation was a painful family history, which may be summed up in the words with which M. Bert recapitulates the case. He showed that Blin was "an illegitimate child who was subject, during the period of his intra-uterine life to the reaction of the emotion and suffering of his deceived mother; the son of a father who committed suicide while insane; the victim of cruel treatment, and deprived of maternal care while a child." M. Paul Bert concluded by asking: "What is the responsibility of a criminal who laughs at his condemnation, with such hereditary influences and education?"

A case of hereditary insanity is to be found in the *Times* for Aug. 19, 1862. In that paper is the account of a murder by James Roberts, living at Bristol, who, in a sudden attack of monomania, smashed the head of his little daughter, aged sixteen months, by battering her with a poker. He was proved to be insane, and it was brought out at the trial that his father, paternal grandfather, and paternal grandmother, were all insane. Mr. Sedgwick, in speaking of the case of Roberts, says: "It is to be noticed in this case, that as the paternal grandfather and paternal grand-uncle were brothers, the inheritance of the disease was probably derived from a previous generation."

Mr. Sedgwick, who has collected much information concerning hereditary transmission, mentions a case recorded by Dr. Rud. Leubuscher. A peasant at Halle, who was twenty years of age, heard a preacher make use of the words, "all men are sinners." This preyed so upon his mind that he ultimately became insane. His father had become insane at exactly the same age. Voltaire expresses his surprise at the tendency of hereditary suicide to take place at a definite age. M. Esquirol, speaking about the hereditary transmission of insanity, notices the fact that it often shows itself in the different individuals of a family at the same period of life. He mentions several cases which illustrate this. "Two sons of a merchant in Switzerland died insane at the age of nineteen years. A lady, aged twenty-four years, was attacked by puerperal madness; her daughter suffered in like manner at the same age. In one family the father, the son, and the grandson all committed suicide about their fiftieth year. A gentleman, affected by the first events of the Revolution, remained during ten years shut up in his chamber; his daughter, about the same age, fell into a similar state, and refused to quit the apartment." Prosper Lucas mentions one instance of a noble family in Hamburg, who were all attacked with insanity at the age of forty. One only was left, and he was forbidden to marry. When the critical period came, he, too, became insane. Dr. Burrows tells us that one of the youngest persons under his care as a lunatic was a boy of Jewish family. His father and mother were both insane, and his six brothers and sisters became insane like himself at the age of puberty. Fortunately, this youth was completely cured by the treatment of Dr. Burrows.

In a number of *L'Encephale*, about two years ago, there was a communication on twin-madness contributed by Professor Ball. By twin-madness is understood a mental derangement occurring in twins, commencing at nearly the same time and being of the same nature. He had made observations on twin sisters who were troubled with hallucinations which were developed with an interval of only a few days. After referring to the intimate union between twins, Professor Ball gives it as his opinion that such cases must be attributed to heredity, "and that insanity in twins is but the highest expression of heredity."

In the year 1863, two brothers, Martin and Francis, twins, were working on the Quimper Railway, in France. Martin had previously shown signs of insanity. On the night of January 15, the brothers were robbed of a joint property of 300 francs. On the night of January 23, the two brothers, who lived two leagues from each other, had similar dreams, and rushed about exclaiming that they had seized the robber. Martin nearly strangled his son in mistake, afterwards attempted to drown himself, and was on the next day placed in a lunatic asylum. Francis, who was searching for the robber, actually met the police who were taking his brother to the asylum, and became horrified, thinking that Martin was mistaken for the thief. Although his friends succeeded in calming him, he ultimately escaped from them, and drowned himself at the very spot where Martin, unknown to Francis, had just tried to do so. Martin died raving mad on the 27th. The *Annales Medico-Psychol.*, 1863, says: "Thus died these twin brothers, their insanity, due to the same cause, appeared at the same time, exhibited nearly the same symptoms, and would have been terminated, unknown to each other, by the same suicidal means and at the same spot, if means had not been taken to prevent it in the case of one of them." One cannot help supposing that there was an hereditary predisposition to insanity—Martin had shown signs of insanity years before—and that mental irritation, resulting from their loss, had finally developed it.

Dr. Leubuscher quotes the following case from Rush: "Captains C. L. and J. L. were twins, and so much

"SUMMER, HEADS WILL BURN,"

And thirsty souls to drink will turn.

And the question is, "What is best to drink during the hot weather?" "The faculty are agreed that under present conditions **THIRST** should be fought against and avoided as an insidious enemy."—Vide *Daily Telegraph*, July, 1886.

THIRST IS ALLAYED in a remarkable manner by Lamplough's Pyretic Saline. It controls Fevers, removes Feverish Colds, and all Feverish Symptoms. It strikes at the

ROOT OF DISEASE, improving Digestion, by clearing away obstructions from the Stomach, Liver, and bowels, and at the same time renovating the blood, eradicating Poisonous and Feverish Humours, cooling and oxygenating it.

NO OTHER MEDICINE REQUIRED FOR 15 YEARS.—Mr Young writes, under date 12th October, 1886:—"For something like fifteen years I have constantly taken your Pyretic Saline every morning. "During the whole of that time I have *never taken any other medicine*, nor had a doctor. I have also "given it to my children, and to it attribute the fact that I have *never had to call in a doctor* for them "since they were born."

MOST EFFICACIOUS in Headache, Biliousness, Constipation, Small Pox, Measles, Scarlet and other Fevers, Vomiting, Eruptive or Skin Affections, removing effects of over-eating or drinking, relieving the stomach when disordered through taking unsuitable food.

A DELICIOUS COOLING DRINK is formed by adding Lamplough's Concentrated Lime Juice Syrup to the water before causing it to effervesce with the Pyretic Saline. It much refreshes the system. "A Perfect Luxury."

HENRY LAMPLOUGH (Ltd.), 113, Holborn, & 9a, Old Broad-st., London, E.C.

VAN HOUTEN'S COCOA

EASILY DIGESTED—**PURE**—SOLUBLE—MADE INSTANTLY.

Incomparably THE BEST & MOST ECONOMICAL.

Being very strong and nutritious,
THIS Cocoa is cheaper and more satisfying than tea.

"Admirable,"
"flavour perfect,"
"& so pure."
} *BRITISH MEDICAL — JOURNAL.*
"Delicate aroma,"
"pure & unmixed,"
"goes a long way."
} *LANCET.*

"Once used, always used."—HEALTH.

SAMPLE TINS GRATIS—through your Grocer or Chemist.

NOW READY. Crown 8vo, cloth, price 7s. 6d.

HEALTH FOR THE PEOPLE.

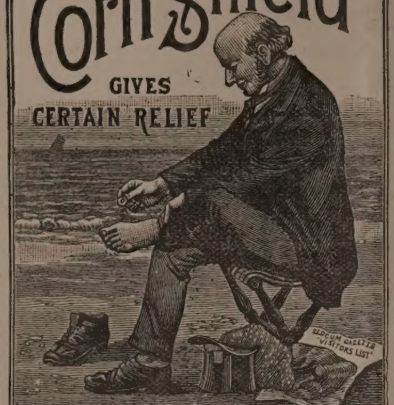
By DR. ANDREW WILSON.

Reprinted from HEALTH, with Revisions.

LONDON: SAMPSON LOW, MARSTON, SEARLE, & RIVINGTON, 188, FLEET-STREET, E.C.

ALLCOCK'S Corn Shield

GIVES CERTAIN RELIEF



THE BEST CORN PLASTER MADE

TOOTH-ACHE

CURED INSTANTLY BY

BUNTER'S NERVINE

Prevents Decay. Saves Extraction. Sleepless Nights Prevented. Neuralgic Head-aches and all Nerve Pains removed by Bunter's Nervine.

All Chemists, 1s. 1½d.

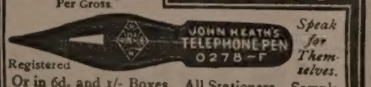
BUNTER'S DENTINE

Is the most Simple & Durable Stopping for Decayed Teeth.

One can easily prepare and place it in the cavity of the Tooth in a soft state, and in a few hours it becomes a perfectly hard and white Enamel, forming as it were a part of the original substance of the Tooth. All Chemists, 1s. 6d.

John Heath's PENS

Turned-up Point, Bronzed Fine or Medium, 2s. 6d. Golden Coated, 3s. 6d. Per Gross.



Speak for Themselves.

Registered

Or in 6d. and 1/- Boxes. All Stationers. Sample Box (24 kinds) 7 stamps. BIRMINGHAM.

Order "HEALTH" from your Newsagent.

TERMS OF SUBSCRIPTION.

Yearly, including home postage, postage to the Continent, Canada, or the United States, 10s. 10d.; Six Months, 5s. 5d.; Three Months, 2s. 8½d.

Cheques and Post Office Orders to be made payable to the Publisher, A. P. WATT.

A WONDERFUL MEDICINE.

BEECHAM'S PILLS

BEECHAM'S PATENT PILLS. ST. HELENS LANCASHIRE

ARE universally admitted to be worth a Guinea a Box for Bilious and Nervous Disorders, such as Wind and Pain in the Stomach, Sick Headache, Giddiness, Fullness and Swelling after Meals, Dizziness and Drowsiness, Cold Chills, Flushings of Heat, Loss of Appetite, Shortness of Breath, Costiveness, Scurvy and Blotches on the Skin, Disturbed Sleep, Frightful Dreams, and all Nervous and Trembling Sensations, &c. The first dose will give relief in twenty minutes.

Every sufferer is earnestly invited to try one box of these Pills and they will be acknowledged to be

WORTH A GUINEA A BOX.

For females of all ages these Pills are invaluable, as a few doses of them carry off all humours, and bring about all that is required. No female should be without them. There is no medicine to be found equal to Beecham's Pills for removing any obstruction or irregularity of the system. If taken according to the directions given with each box they will soon restore females of all ages to sound and robust health. This has been proved by thousands who have tried them, and found the benefits which are ensured by their use.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like magic, and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long lost complexion, bring back the keen edge of appetite, and arouse into action with the rosebud of health the whole physical energy of the human frame. These are FACTS testified continually by members of all classes of society; and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS *have the Largest Sale of any Patent Medicine in the world.*

Prepared only and Sold Wholesale and Retail by the proprietor, THOMAS BEECHAM, St. Helens, Lancashire, in boxes at 1s. 1½d. and 2s. 9d. each.

Sold by all Druggists and Patent Medicine Dealers everywhere.

N.B.—Full directions are given with each box.

SEVENTEEN GOLD, SILVER, & BRONZE MEDALS.

WM. WOOLLAMS & CO.,

ORIGINAL MAKERS OF GUARANTEED

NON-ARSENICAL WALL PAPERS.

TO BE OBTAINED OF ALL DECORATORS.

Manufactory and Sole Address:

110, HIGH STREET
(Near Manchester-square),
LONDON, W.

NOTE TRADE MARK.

General Nursing Institute,

5 & 4, HENRIETTA-STREET,

COVENT GARDEN, LONDON, W.C.

Established 1862. Solely under Medical Direction.

HOSPITAL TRAINED NURSES for every description of disease—MEDICAL, SURGICAL, MENTAL, and MIDWIFERY—can be obtained at this Institute on application to the Secretary or Lady Superintendent at a moment's notice, being resident in the Home.

MALE ATTENDANTS and NURSES specially for FEVER cases.

Telegraphic Address, "Nursing Institute, London."

TOWLE'S Pennyroyal & Steel Pills

FOR FEMALES

Quickly correct all irregularities and relieve the distressing symptoms so prevalent with the sex. Boxes, 1s. 1½d. and 2s. 9d., of all Chemists. Sent anywhere for 15 or 34 stamps, by

THE LINCOLN & MIDLAND COUNTIES DRUG CO., LINCOLN.

BEWARE OF IMITATIONS.

Pommade Trichophile.

A CERTAIN CURE FOR SCURF.

FOR PARTICULARS APPLY TO THE

FRENCH HYGIENIC SOCIETY,

56, CONDUIT-STREET, LONDON, W.

Now Ready, Volume X. of

HEALTH

Handsomely bound in cloth, price 7s. 6d.

HUNDREDS OF INTERESTING SUBJECTS TREATED IN THIS VOLUME.

Cloth Cases for binding Vol. X. can be had, price 2s. Index for ditto, price 2d.

ALEXANDER P. WATT, 2, PATERNOSTER-SQUARE, LONDON, E.C.

alike that they could not be distinguished apart. They served in the American War of Independence, distinguished themselves equally, and obtained the same military rank. They were of cheerful dispositions, were happy in their respective marriages, and in the enjoyment of easy means. Captain C. L. was at Greenfield, two miles from the residence of his brother, Captain J. L., who returned from the meeting of the State of Vermont, and killed himself, after having been depressed in spirit and sullen for some days past. At the same time, Captain C. L. became melancholy, and spoke of committing suicide. A few days afterwards, he proposed to his wife one morning to take a walk, and, going into an adjoining apartment, cut his throat. The mother of these two brothers was insane, and two of her sisters were tormented, during many years, by a desire to commit suicide."

Very frequently strange likings and dislikings, melancholy, and a peculiar flightiness of manner are only variations of madness. Dr. Forbes Winslow gives a remarkable case: "A gentleman suddenly, and without any apparent reason, cut his throat. The father had always been a man of strong passions, easily roused, and when so, was extremely violent. The brother was a man of impulse; he always acted by fits and starts, and therefore never could be depended upon. The sister had a strange, unnatural, and superstitious horror of particular colours and odours. A yellow dress caused a feeling approaching to syncope, and the smell of hay produced great nervous excitement. The grandfather had been convicted of homicide, and had been confined for two years in a mad-house."

The average watch is composed of 175 different pieces, comprising upward of 2,400 separate and distinct operations in its manufacture. The balance has 18,000 beats or vibrations per hour, 12,960,080 in thirty days, 157,680,000 in one year; it travels one and 43-100 inches with each vibration, which is equal to 9¾ miles in twenty-four hours, 292½ miles in thirty days, or 3,558¾ miles in one year.

Odd Manuscripts.—To the student of old manuscripts there is nothing astonishing in the materials on which they were written. The "Koran" was inscribed on the shoulder blades of sheep; the "Iliad" and "Odyssey" of Homer, we are told, were first written upon serpents' intestines, and in characters of gold. The scroll was 100 feet long. In Job's time it was the custom to write on lead, and the Northern authors wrote all of their works on beechwood or "bog," from which our word "book" is derived. Cleanthes, the philosopher, was so poor that he wrote his immortal work on shells, and there is to be seen at the Strozzi Palace, at Rome, a book made of marble, whose leaves are cut to a marvellous thinness.

Fourth Edition.—Now Ready.

"A Book every Young Man should read."

A Lecture to Young Men on Purity of Life and the Preservation of Health, by A Graduate. Price One Shilling, or post-free, 1s. 1d., from Henry Renshaw, Medical Publisher, 356, Strand, London, W.C.

A complete refutation of quackery of all kinds, and a safe and reliable guide, from the medical standpoint, to all young men. Every youth should read this pamphlet as a guide to the safe conduct of life in a moral and physical sense. Full directions for the treatment of Nervous Debility so-called, and allied ailments, are also given. Thousands of sufferers have welcomed this pamphlet as a veritable beacon-light to health and purity of life.

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

NEW DRUGS FOR FEVERS.

Antipyrin.

A knowledge of those drugs employed to control fever may at almost any time prove of inestimable benefit to its possessor. In these days of bad water, sewer gas, and travels into unhealthy quarters, everyone is more or less likely to be stricken with fever. Perhaps a physician is not right at hand, and the lesions of the high temperature may be very serious. To lower the temperature in fever by no means necessarily predicates a cutting short of the disease, but it often signifies an amelioration of the consequences, for the evils of a high-fever heat upon the brain and other nerve centres may be serious in the extreme. The last year or two has been prolific in its yield of new drugs for the treatment of febrile conditions, antipyrin, antifebrin, and salol being among the number. We shall consider antipyrin first.

Antipyrin is a product obtained from coal tar, and in this connection may be quoted the strain of pleasantry from Bishop Berkeley, as follows:—"The virtues of tar-water, flowing like the Nile from a secret and occult source, brancheth into innumerable channels, conveying health and relief wherever it is applied." Among the various valuable products of coal-tar, antipyrin, as we shall see, takes no mean place.

First of all in rheumatic fever it is the best of all known remedies, exerting a curative influence upon the disease, generally breaking it up in a very short period. Other agents there are, many of them strongly recommended for rheumatism, but none can equal antipyrin. In using it for this ailment there is one point to be observed, which is that if the drug be not persistently taken in gradually lessening doses for some days relapses may occur.

In typhoid and other fevers where the temperature may mount to a fearful height, antipyrin will lower it in an hour or so down to normal, often keeping it low from six to twenty-four hours. The same is the case with pneumonia, and in erysipelas and quinsy it has frequently abated an attack.

In malarial fevers it lowers the fever-heat, but is not generally considered to be curative in these cases. In children, however, it is probably the best drug for fevers at hand. It should be noted that sometimes a rash of insignificant moment follows its use, but disappears when the drug is suspended.

In dealing with the febrifuge properties of antipyrin its more noteworthy action should not be passed by, though it escaped notice for a long time. In giving the drug for rheumatic fever it was found to relieve the pain. Further trials revealed the fact that it controlled *all* pain, and particularly that associated in any way with a rheumatic condition of the system. Therefore it was given in sciatica, lumbago, pleurodynia, and neuralgia. It was found safer than opium and far more agreeable in its action. Even in biliary and renal colic it stopped the pain. As it is well known that in these troubles there is a spasm of a duct upon a stone, the relief afforded suggested the idea that antipyrin might be anti-spasmodic. Accordingly it was given in whooping cough, epilepsy (fits), and St. Vitus's Dance, with excellent results.

Antipyrin has been given in many cases of sea-sickness with perfect satisfaction; it is a good preventive indeed.

Furthermore, it is one of the best of styptics, having controlled hæmorrhage when iron and ergot had failed.

Antipyrin is the safest drug of its class, but should not be taken in too large doses. Three five-grain tabloids is an ordinary dose, and may be repeated in an hour, and again in another hour in severe fever and sea-sickness. For pain two tabloids is ofttimes sufficient.

FACTS ABOUT OPIUM.

By G. WINTERBURN, M.D.

"Oh, that men should put an enemy into their mouths to steal away their brains."—OTHELLO.

"They are drunken, but not with wine; they stagger, but not with strong drink."—ISAIAH.

SECOND PAPER.

OPIUM-INEBRIETY assumes three forms—opium-eating, opium-smoking, and the use of morphine by the hypodermic syringe. In this country the first and last methods are the most employed, opium-smoking being mainly confined to the immigrant Chinese and those who associate with them. Opium-eating, by which is meant the taking of opium by the mouth, either in the form of laudanum, rice-powder in which a salt of morphia has been mixed, or a bit of the original opium-mass, is much more deleterious than opium-smoking. It is the form chiefly practised in India, Persia, Asia Minor, and the Occidental nations. While its moderate use may be indulged in for years without producing any decided ill-effect except weakening the reproductive powers, especially among those whose daily labour requires violent physical exertion, and while in communities in which the use of opium replaces alcohol insanity and crime are comparatively rare, its persistent excessive use is followed by the most disastrous effects, moral and physical. Among Oriental peoples poverty prevents this excessive use, its high price limiting its consumption; excessive indulgence is the prerogative of the wealthy and luxurious. In this country, however, the high wage-rate enables ordinary mechanics, and even labourers, to treat themselves to it in quantities which, unhappily, in many cases, gradually reduces them from the ranks of competent wage-earners to abject poverty.

Opium-inebriety is a topic which has received neither from the general public nor from the medical profession at large a moiety of the attention it deserves. The literature on the subject is meagre, and but few physicians are familiar with what we have. And yet the evil is widespread, as I have stated, and is spreading year by year. That opium is employed largely in excess of any legitimate therapeutical demand is stated by so careful an observer as Dr. E. R. Squibb, the well-known pharmaceutical chemist of Brooklyn, N.Y., who supposes the importation of opium and opium-products exceeds in value by several million dollars the quantities required to fill physicians' prescriptions. The amount of imported opium has nearly tripled since 1876. Opium-inebriety being a secret vice, it is impossible to enumerate its victims, but it is believed that nearly a million persons in the United States are more or less habituated to its use, and of these more than a quarter of a million are confirmed opium inebriates.

Now, from whence comes this immense army of unfortunates? Undoubtedly, not a few resort to the use of opium as a palliative of the nervous affections induced by sexual abuses, alcoholism, and other excesses; but this, unfortunately, accounts but for the stragglers in this great army. There may be some excuse for its prevailing use in the Orient, where it is usually resorted to during the long religious fasts to allay the pangs of hunger, and during pilgrimages to enable the pilgrim to undergo the fatigue and insufficiency of food when on these long journeys. During the famine year of 1866 it enabled many to live who would else have died from starvation. But no such excuses for its use exist in this country. Very few fall victims to its influence here but those who have begun its use as a palliative in disease. Dr. Parrish says: "Men take it, not from choice, but from a physical necessity." And this physical necessity arises from its incautious employment by physicians everywhere. Speaking on this very point, Dr. Van Dusen says: "For the primary induction the stated physician is so commonly responsible, that the *onus probandi* in exculpation rests upon him, by all fair presumption." This is a severe charge to bring against the medical profession, and one that should not be made even by one of its own members, unless susceptible of indubitable proof. That this drug is used, not only incautiously, but even recklessly, by a large part of the medical profession, is too evident to be denied. For every little pain or ache, out comes the hypodermic syringe. Instead of more philosophically removing the cause of the pain, they simply cover it up by putting the patient to sleep. Having learned how expeditiously and easily the pain may be removed, the patient, who, as a rule, knows nothing of the danger of continued taking, repeats the dose. Unwarned by his medical adviser, this goes on until the unsuspecting sufferer is aroused by a sense of helplessness to a realization of the dreadful fact. Not only is this true of the public in general, but even in the medical profession there are many who thus trifle with the destroyer in their own persons until they become helpless.

The danger thus wrought is far from fanciful, and it is an important question whether the harm thus induced does not greatly overbalance the advantages gained by legitimate use—whether the world would not be better, physically and morally, if opium were banished forever from the face of the earth? Whatever might be the answer to that inquiry, it is certainly the province of wise professional oversight to guard patients from the mental and physical suffering induced by this form of inebriety. The patient is in danger from the very first dose; for it is astonishing how soon, in some instances, opium will prostrate the will and defy all self-effort at abandonment. This fact must not be ignored, that the habit once formed becomes a disease, not only of appetite but of the will, and, as in alcoholism, the patient is unable to free himself from this vicious propensity.

I do not propose to occupy space relating instances of this habit. There is no person of extensive acquaintance in any part of the country who has not abundant opportunity for personal investigation of these effects. There is not a physician in active practice but who finds his efforts to cure chronic diseases constantly baffled by the effects of opium upon the system; for it is not alone those who are degraded to inebriety that feel the baneful effects of this drug. It is its nature to interfere with the action of every other remedy, to make chronic diseases more obstinate, to stand between patient and physician as an obstacle to cure. This is the case, not only when taken in the immense doses of the confirmed inebriate, but also when given in what is called moderate and safe dosage.

(To be concluded.)

The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

THE USE OF ARSENIC BY WOMEN.

The consumption of arsenic by the fair sex, on account of its cosmetic virtues, says a contemporary, would appear to be on the increase. The habit is one of long standing with the peasant women of some portions of Western Austria, and their example has not been lost on ladies outside the dominions of the Emperor Francis Joseph. Still, certain facts which recently have been made public as to the spread of arsenic eating, will, we imagine, take most people by surprise.

That the head mistresses of girls' boarding schools should cause the drug to be regularly added to the food of their pupils in order to improve their complexion is a revelation for which the general public was hardly prepared. Yet we have it upon the authority of an eminent physician, Dr. Buchner, of Munich, that there are *pensionnats* for young ladies in Switzerland at which arsenic is habitually mixed with the dishes served at dinner.

We have not heard whether the practice has obtained a footing in similar establishments in this country, but there can be no doubt that many of our female cousins in the United States have, for a long time past, been no strangers to the cosmetic virtues of the drug.

On the other side of the Atlantic it is taken in the form of arsenical wafers, which are obtained from the chemists and druggists. At the next Pharmaceutical Conference in New York the question is down for discussion as to the quantity of arsenic usually put in these wafers, and the effects of the habitual consumption of them is also set down for discussion. The delicate waxlike complexion of many young American ladies, and the suddenness with which they lose their beauty as they advance into middle life, have been often remarked by English travellers. It would be interesting to learn whether the explanation of these facts is to be sought in the unnatural taste for doses of one of the deadliest of poisons.

In referring to this question, another writer says that although the swallowing of a small dose of arsenic means death to an ordinary person, it is tolerably well known that in very minute quantities it has long been consumed by women in certain districts on the Continent. The effect of the regular consumption of the poison by the Austrian peasant maidens is to improve their complexion, and when due caution is observed in avoiding too large doses, the general health is said not to suffer.

Another effect, however, which is not so generally known—having, in fact, but recently been reported—is calculated to suggest some curious reflections. The children of mothers who have been in the habit of taking arsenic for "æsthetic" purposes are found, it is said, to be bigger and grow more rapidly than those of women who eschew the drug. Moreover, the children of arsenic-eating mammas attain, as a rule, a greater stature than those whose parents never touched the poison. If these observations should be verified, and if it further appears that these bigger specimens of humanity are as strong, healthy, and long-lived as ordinary-sized people, it would seem to be within the range of possibility that some nation may one day decide to make their descendants a race of giants.

Arsenic is found in appreciable quantities in some kinds of vegetables like turnips and cabbages of certain descriptions, so that if the stimulating effect of the drug on human growth and physique be confirmed, Frenchmen and other undersized people will not have necessity of resorting to the chemist in order to obtain the most effective means of increasing their stature.

A lawyer had a call at his office during business hours from a client, during which the latter did a good deal of social talking, but contrived to extract a good deal of advice from the lawyer about the proposed transfer of a house to his wife in view of the claims of certain creditors. He went away, and acted accordingly to the advice. When the lawyer sent in a bill some months afterwards, he was genuinely surprised, and exclaimed, "Why, my dear fellow, I was visiting you." "Never mind," said the lawyer, "now I am visiting you, with the consequences." He paid up.

Witchcraft.—In those days almost anything was sufficient to establish the fatal character of witchcraft. Eccentric habits, a fondness for pet animals and birds, a bad temper, a half-crazed brain, even superior attainments or a love for nature and knowledge of simples, a genius for mechanics, a passion for chemistry, a love for the stars—it mattered not what the peg on which to hang the accusation, it was a peg. And the rich shared the danger with the poor. Love itself was often ascribed to sorcery; and "the charm" was sought for—and generally found; for the most part under the tongue. One of these old-world stories tell how the great French Emperor, Charlemagne, was bewitched in this way. He loved the beautiful lady beyond reason while she lived, and when she died he loved her still, and would not part with her body. Decay set in, and all the sad circumstances of mortality were there; but still Charlemagne clung to the corpse, and kept it, and found it beautiful. Then the wise men searched for the charm, and found it under the dead woman's tongue. When they took it away, the Emperor came back to his true senses, and the fearful thing was carried out of his sight, and buried in the earth. All sorts of strange beliefs flourished in the early times. The mandrake's forked root was held to be not only like a man, but in some sort to partake of the human nature it resembled. When torn from the earth it shrieked as one in agony; and he who heard the shriek went mad. A pinch of fern-seed would make the bearer invisible; and the dew gathered from the grass on a May-day morning would make the plainest girl beautiful. "Familiars" were as common as caterpillars; and "imps" were as many as there were queer pets, trained by lonely women for company and diversion. These "familiars" could transform themselves into any shape they would—organic or inorganic, animate or inanimate. It is all one to them whether they were under the form of man or child, dog or wain of hay, bird or two whirling straws speeding across the courtyard when there was no wind. These "familiars" gave advice and foretold events—so said those whom they haunted. They were at times useful and of civil manners; at others, brutal, rude, capricious, and mischievous. And they were jealous of interference, and would not be looked at in their original form, whatever that might be. One very famous "familiar" of these olden times left his master in a huff, because he broke his plighted word and sought to see in his true form the weird creature whom he did not recognize as a stick, a straw, a lurcher, or a beggar-woman.—*Mrs. Lynn Lynton.*

Healthy Houses

"A happy home must be a healthy home."—*Anon.*

DAMAGES FOR INFECTION.

THE *Sanitary Record*, in the course of an admirable article on the above topic, says: The case of Taylor *v.* Spalding, which recently came before Baron Huddleston and a special jury, raised some very nice questions of sanitary law, but unfortunately left them still undecided. The action was brought by a lodging-house keeper to recover damages from a lodger who had imported scarlet fever into the house, and so injured the business of letting lodgings. The defendant was asked whether she or her children were in any way infectious, and had replied that there was nothing of the kind to be feared; relying for this on what her doctor had told her. Two of her children had a short time previously had diphtheritic sore throats, and her cook had had an illness which the doctor had admitted to be suspiciously like scarlet fever, though he thought it was really due to drain poisoning. Nine days after the defendant had taken the lodgings, a child of hers, who had not previously been ill and had not been with the other children till they all came to the lodgings, developed symptoms of scarlet fever; and as a result the plaintiff's lodging-house had to be closed, and her business was seriously injured.

On these facts Baron Huddleston said that the questions for the jury were: (1) Did the infection which communicated the scarlet fever to the child originate in connection with the sickness in the defendant's house? If not, of course there would be an end of the plaintiff's case. But if it did, the further questions arose: (2) Did the defendant know or ought she to have known that there was any danger of infection? and (3) had she wilfully concealed the risk of infection? A person taking lodgings does not, in his view, by so doing give any implied warranty that he is free from infectious or contagious disease, though of course he may, in that as in any other case, give an express warranty; and even if such a person was aware that there was a danger of infection, the learned judge doubted whether he incurred any legal liability to the person from whom the lodgings were taken, unless he fraudulently concealed the fact. Whatever might ultimately have been decided, the law on this point is certainly doubtful, and the parties were no doubt wise in their own interests to settle the case without long and uncertain litigation. The question raised is, however, important, and sooner or later will have to be decided.

By common law and by the Public Health Act it is an offence, wilfully and without proper precautions against spreading infection, to expose any person suffering from a dangerous infectious disorder in any public place, &c. The Act does not impose any penalty on persons who merely run the risk of injuring individuals by communicating infection to them, as its policy is to protect the public. Persons who let out vehicles for hire, and those who let houses or lodgings, if they knowingly let them after occupation by any person suffering from a dangerous infectious disorder, without having them first properly disinfected, are also liable to a penalty. In this case also the intention to protect the public is apparent. No offence is committed against either of these provisions by the innocent exposure of infectious persons, if the exposer does not expose them wilfully, *i.e.*, knowingly. If, in ignorance of the fact that there is danger of infection, any person exposes an infected person or article, and some member of the public in consequence contracts the infectious disease, there seems to be no remedy. There is certainly none criminally, and we are not aware of any case in which an action to recover damages has been brought under such circumstances.

In a case of Best *v.* Staff, in the year 1872 (reported in the *Times*, Nov. 9, of that year), a lodging-house keeper recovered damages from a person who took a child to lodgings when recovering from small-pox. But there it was proved that the defendant was aware that the child was infectious, and concealed the fact from the plaintiff. The question whether a person who, without negligence or fraud, brought an infectious person into contact with others and so caused them injury would be liable to an action for so doing was there raised, but it was not necessary to decide it, and the Court of Queen's Bench avoided giving any decision upon it. The answer to the second question which Baron Huddleston proposed in Taylor *v.* Spalding to leave to the jury would have determined whether the defendant either knew or was guilty of negligence in not knowing that her child was in an infectious state; and the third, if answered against her, would have shown that she was guilty of fraud in concealing the fact. If the answer to the second question had been that she did not, in fact, know, but ought to have been aware, that the child was infectious, the question which was left undecided in Best *v.* Staff would have had to be determined, probably by the Court of Appeal. The date of the decision is now postponed indefinitely.

Baron Huddleston intimated that in his opinion nothing short of fraud would support the action. Even, therefore, if the jury had found that the defendant either knew or was negligent in not knowing her child to be infectious, he would apparently have determined that she was under no legal liability. If this view of the law is correct, the hirer of lodgings is in a better position than the keeper of the lodging-house. The latter would incur a penalty if she let her lodgings knowing them to have contained an infectious case, and would, as a consequence, be also liable to pay damages to any one injured through her so letting them. The hirer also renders himself liable to a penalty, and so to damages, if without proper precautions against the spread of infection he exposes an infected person in—or, in other words, takes him into—an inn or public conveyance. A lodging-house would seem to be a place which, from consideration for the public safety, ought to be protected in the same way. The opinion which the judge intimated he held is, of course, by no means conclusive. It is not binding either on him or on any other judge in any future case.

We venture respectfully to doubt its correctness, and to think that those who have charge of persons suffering from infectious diseases owe a duty to the public not unnecessarily to expose other persons to the risk of infection; and that if they neglect or ignore this duty they are civilly liable to the consequences. Carelessness in this respect is, unfortunately, not uncommon. We can only hope that a case may soon arise in which it will be shown that such carelessness is expensive; and that those inclined to be guilty of it may receive a salutary warning, which will be productive of benefit to the public.

PROF. LECLERC maintains that odours are due, not to the emanations, *as such*, of so-called odoriferous bodies, but to the vibratory movement among such emanations, due to processes of oxidation. Scent on this theory, is analogous to sound.

RICH IN PHOSPHATES & NITROGEN.

NOT FARINACEOUS.

MELLIN'S FOOD for INFANTS and INVALIDS.

Extract from the report of Dr. A. STUTZER, of Bonn, on "Mellin's Food":—

"Starch is entirely absent, and the carbohydrates present must consequently be easily assimilable. These carbohydrates consist of *maltose-sugar*, *dextrine*, and *milk-sugar*, so well adapted for the nourishment of the infant's organism, whilst cane-sugar, which has an unfavourable action upon children because it produces an excess of acids in the stomach, is entirely absent.

"As the result of my analysis and experiments, I must hold that MELLIN'S FOOD, when properly prepared for use, is very excellent, and fulfils all the requirements of a Food for Infants.

"Bonn, Jan. 23, 1887."

Pamphlet, with full Report and Analysis, free on application.

TRADE MARK

ORA ET LABORA

PRICE 1/6 & 2/6 PER BOTTLE.

MELLIN'S LACTO-GLYCOSE OR MILK FOOD.

Price 2s. and 3s. per Bottle.

In this preparation Milk is incorporated with the Food in the process of manufacture, thus making it specially suitable where a difficulty exists in procuring fresh cows' milk, as, for instance, on board ship and in hot climates.

Sample and Prospectus on application to the Inventor and Manufacturer,

G. MELLIN, Marlboro' Works, Peckham, S.E.

To ensure Shipment, Goods must be alongside the Steamers half-an-hour before the advertised time of Sailing.

LEITH AND LONDON.

The LONDON and EDINBURGH SHIPPING COMPANY'S First-class Steamships, METEOR, IONA, MALVINA, MARMION, MORNA ("Meteor," "Iona," "Malvina," and "Marmion" lighted by Electricity), or other of the Company's Vessels, are intended to Sail (till further notice) from VICTORIA DOCK, LEITH, every WEDNESDAY, FRIDAY, and SATURDAY, and from HERMITAGE STEAM WHARF, WAPPING, E., every TUESDAY, WEDNESDAY, and SATURDAY.

FARES—First Cabin, including Steward's Fee, 22s.; Second Cabin, 16s.; State Rooms for Families, 10s. each Berth additional. Deck (Soldiers and Sailors only), 10s.

RETURN TICKETS, available for Twelve Months (including Steward's Fee both ways)—First Cabin, 34s.; Second Cabin, 24s. 6d.

☞ *Provisions, &c., may be had from the Steward on Moderate Terms.*

Not responsible for Passengers' Luggage, unless booked and paid for.

Cheap Circular Tours round the Land's End and by Bristol Channel, in connection with the Clyde Shipping Company and Messrs. Sloan & Company's Steamers.

Apply in LONDON, to London and Edinburgh Shipping Company, Hermitage Steam Wharf, Wapping; SEAWARD BROTHERS, 7, Eastcheap, E.C.; Aberdeen Steam Navigation Co., 102, Queen Victoria-street, E.C.; R. Thomson or M'Dougall & Bonthron, 72, Mark-lane, E.C.; G. W. Wheatley & Co., 23, Regent-street; Lavington Brothers, 69, Old Bailey; EDINBURGH—Cowan & Co., 4, Princes-street; GLASGOW—Cowan & Co., 23, St. Vincent-place; GREENOCK—D. Macdougall, 1, Cross Shore-street; and here to

8 & 9, COMMERCIAL-STREET, LEITH, *April*, 1888. THOMAS AITKEN.

Telegraphic Addresses: Leith, "Aitken;" London, "Edina." Commercial Street Office, Leith, Telephone No. 403; Dock Office, Leith, Telephone No. 422.

TEETH.

A COMPLETE SET, ONE GUINEA.

Single Tooth, 2s. 6d.

FIVE YEARS' WARRANTY.

Dr. ANDREW WILSON, late R.N., says:—"I can recommend Mr. Goodman as a very skilful and humane dentist. His reasonable charges should attract to him all classes."

MR. GOODMAN, *Surgeon Dentist,*

(Late Manager for Messrs. Eskell,)

41, LUDGATE HILL (Opposite Old Bailey).

Hours 10 to 8.

Also at 68a, Market, Manchester; 30a, Bold-street, Liverpool; 57a, Boar-lane, Leeds; 1, Piccadilly, Bradford; 8, Pavilion Buildings, Brighton; 251, Sauchiehall-street, Glasgow, 29, Hanover-street, Edinburgh, &c., &c.

"The SANITARY ROSE POWDER."

Awarded SILVER MEDAL *Health Exhibition*, 1884.

For TOILET and NURSERY.

Approved by the leading Medical Press, and pronounced to be "THE PERFECTION OF NURSERY POWDERS."

Soothes the skin and prevents roughness. Dusted on the feet, affords comfort in walking. Invaluable at the seaside.

Purchasers are cautioned against imitations. See that each package bears the "THREE ARROWS" Trade Mark.

Regd.

WHITE or PINK, in boxes 1s. & 2s., of all Chemists, or direct from the Proprietors—

JAS. WOOLLEY, SONS & CO.,

Manufacturing Pharmaceutical Chemists, MANCHESTER.

CELLULAR CLOTH & CLOTHING.

THE principle involved in this material for both outer and under clothing is that it is cellular in structure, so that advantage is taken of the non-conducting power of the AIR (one of the best non-conducting substances known) to make it a covering for the body equally fitted for the COLD OF WINTER and the WARMTH OF SUMMER.

Vests, Pants, Pyjamas, Tennis Shirts, &c., made from Cellular Cloth are very HEALTHY, COMFORTABLE, DURABLE, and have the great advantage of being EXCEEDINGLY CHEAP, and of washing WITHOUT SHRINKING.

TOURISTS will find Cellular Clothing INVALUABLE, as it effectually PREVENTS CHILLS and is a POSITIVE SAFEGUARD against the variations of our uncertain climate.

Exhalations from the body pass readily through this clothing, and cleanliness of the surface of the body is much promoted by its use. In this respect it is very superior to FLANNEL, WOOL, MERINO, or any other substances which from closeness of texture retain the cutaneous exhalations.

Absolutely Non-Irritating to the Skin.

A LUXURY—CELLULAR SHEETS.

MEDAL of the SANITARY INSTITUTE awarded this Year.

RECOMMENDED BY EMINENT MEDICAL MEN AFTER A THOROUGH PRACTICAL TRIAL.

AGENTS.

R. BRUCE, 27, Oxford-street, W.; A. W. GAMAGE, 127, Holborn, E.C.; J. GROSE, 4, Old Jewry, Cheapside, E.C.; L. JACOBS, 146, Strand, W.C.; A. C. LAWSON & CO., 58, Edgware-road, W.; GEORGE PESCOD, 369, Oxford-street, W.; GEORGE PESCOD, 10, Stockbridge-terrace, Belgravia, S.W. WILLIAM BATE, Southall, Middlesex; FIELD, HAWKINS & CO., Wallingford; F. HAWKINS, Thame; M. A. MOSS, Jersey.

Wholesale only: THE CELLULAR CLOTHING COMPANY, Ltd., 75, Aldermanbury, London, E.C.

CHATTO & WINDUS'S CHEAP EDITIONS OF POPULAR NOVELS.

PICTURE COVERS, PRICE TWO SHILLINGS EACH.

By CHARLES READE.

It is never Too Late to Mend
Hard Cash
Peg Woffington
Christie Johnstone
Griffith Gaunt
Put Yourself in His Place
The Double Marriage
Love Me Little, Love Me Long
Foul Play
The Cloister and the Hearth
The Course of True Love
Autobiography of a Thief
A Terrible Temptation
The Wandering Heir
A Simpleton
A Woman-Hater
Singleheart and Doubleface
Good Stories
The Jilt
Readiana

By WILKIE COLLINS.

Antonina
Basil
Hide and Seek
The Dead Secret
Queen of Hearts
My Miscellanies
The Woman in White
The Moonstone
Man and Wife
Poor Miss Finch
Miss or Mrs.?
The New Magdalen
The Frozen Deep
The Law and the Lady
The Two Destinies
The Haunted Hotel
The Fallen Leaves
Jezebel's Daughter
The Black Robe
"I say No"
Heart and Science

By PERCY FITZGERALD.

Bella Donna
Never Forgotten
The Second Mrs. Tillotson
Polly
Seventy-five Brooke-street
The Lady of Brantome

By R. E. FRANCILLON.

Olympia
Queen Cophetua
One by One
A Real Queen

By CHARLES GIBBON.

Robin Gray
For Lack of Gold
What will the World say?
In Honour Bound
The Dead Heart
In Love and War
For the King
Queen of the Meadow
In Pastures Green
The Flower of the Forest
A Heart's Problem
The Braes of Yarrow
Of High Degree
Fancy Free

By Mrs. OLIPHANT.

Whiteladies.

By BESANT and RICE.

Ready-Money Mortiboy
With Harp and Crown
This Son of Vulcan
My Little Girl
The Case of Mr. Lucraft
The Golden Butterfly
By Celia's Arbour
The Monks of Thelema
'Twas in Trafalgar's Bay
The Seamy Side
The Ten Years' Tenant
The Chaplain of the Fleet
All Sorts and Conditions of Men
The Captains' Room
All in a Garden Fair
Dorothy Forster
Uncle Jack

By BRET HARTE.

An Heiress of Red Dog
The Luck of Roaring Camp
Californian Stories
Flip
Gabriel Conroy
Maruja

By JULIAN HAWTHORNE.

Garth
Ellice Quintin
Sebastian Strome
Dust
Prince Saroni's Wife
Fortune's Fool
Beatrix Randolph

By E. LYNN LINTON.

Patricia Kemball
Leam Dundas
The World Well Lost
Under Which Lord?
With a Silken Thread
The Rebel of the Family
"My Love!"
Ione

By THOMAS HARDY.

Under the Greenwood Tree.

By JUSTIN McCARTHY.

Dear Lady Disdain
The Waterdale Neighbours
My Enemy's Daughter
A Fair Saxon
Linley Rochford
Miss Misanthrope
Donna Quixote
The Comet of a Season
Maid of Athens

By D. CHRISTIE MURRAY.

A Life's Atonement
A Model Father
Joseph's Coat
Coals of Fire
By the Gate of the Sea
Val Strange
Hearts
The Way of the World
A Bit of Human Nature

The above is a Selection only. The Complete List of nearly FOUR HUNDRED NOVELS will be sent free upon application.

LONDON: CHATTO & WINDUS, PICCADILLY, W.

Public Health

"Health is the first Wealth."—*Emerson.*

HOW TO WARD OFF INFECTIOUS DISEASES.

(*Concluded from last number.*)

11. All reasonable care should be taken not to allow infective disease to spread by the unnecessary association of sick with healthy persons. This care is requisite, not only with regard to the sick-house, but likewise with regard to schools and other establishments wherein members of many different households are accustomed to meet.

12. If disease begins in houses where the sick person cannot be properly accommodated and tended, medical advice should be taken as to the propriety of removing him to an infirmary or hospital. Every sanitary authority should have in readiness a hospital for the reception of such cases.

Where dangerous conditions of residence cannot be promptly remedied, it will be best that the inmates, while unattacked by disease, remove to some safer lodging.

13. Privation, as predisposing to disease, may require special measures of relief.

14. In certain cases special medical arrangements are necessary. For instance, as cases of cholera in this country often begin somewhat gradually in the comparatively tractable form of what is called "premonitory diarrhœa," it is essential that, where cholera has appeared, arrangements should be made for affording medical relief without delay to persons attacked, even slightly, with looseness of bowels. So, again, where small-pox is the prevailing disease, it is essential that all unvaccinated persons (unless they previously have had small-pox) should very promptly be vaccinated; and that re-vaccination should be performed in cases properly requiring it.

15. It is always to be desired that the people should, as far as possible, know what real precautions they can take against the disease which threatens them, what vigilance is needful with regard to its early symptoms, and what (if any) special arrangements have been made for giving medical assistance within the district. For the purpose of such information, printed handbills or placards may usefully be employed, and in cases where danger is great, house-to-house visitation by discreet and competent persons may be of the utmost service, both in quieting unreasonable alarm and in leading or assisting the less educated and the destitute parts of the population to do what is needful for safety.

16. The present memorandum relates to occasions of emergency. Therefore the measures suggested in it are essentially of an extemporaneous kind; and permanent provisions for securing the public health have, in express terms, been but little insisted on. It is to be remembered, however, that in proportion as a district is habitually well cared for by its sanitary authority, the more formidable emergencies of epidemic disease are not likely to arise in it.

17. Provision by the public authority for disinfection by heat of bulky articles, and of those which cannot without injury be exposed to chemical agencies, ought always to be in readiness. Without such provision no complete disinfection can be effected. Partial and nominal disinfection, besides being wasteful, may be mischievous, as giving rise to a false security.

18. The following system of domestic disinfection may be commended to sanitary authorities who have already provided adequate public means for the disinfection and for the disposal of infected matters and things:—

(*a.*) For the purposes of the sick-room, such as the reception of soiled handkerchiefs, sheets, and the like, as well as for the swabbing of floors, a valuable disinfecting solution may be made with perchloride of mercury. It is well to have this solution slightly acid; coloured, also, in such a way that it shall not readily be confused with drinks or medicines; and proper caution should be given to avoid accidents in its use. Sanitary authorities will find it advantageous to have such a solution* prepared under the direct instructions of the Medical Officer of Health, and supplied of a uniform strength at the infected house upon the order of that officer.

(*b.*) In places provided with proper systems of excrement disposal, excrements of cholera and enteric fever, after being treated in detail with the same disinfecting solution in ample quantity, may be safely put into the ordinary closet; but special care as to the flushing of drains and sewers, and special frequency in the removal and exchange of excrement receptacles, will commonly be wanted. Where the only closet is one that communicates with a cesspool or privy pit, the best arrangement for the disposal of infected stools that under these improper local circumstances may be found practicable will have to be adopted.

(*c.*) A substance generally available in the removal of filth from privies and ashpits, and for application to foul earth and the like,† is sulphate of iron (green copperas), either in a strong solution made by stirring crystals of the salt with five or ten times their bulk of hot water, or in the form of powder, to which form the crystals may be readily brought after desiccation. This agent should be used in quantity sufficient to destroy all odour, and in the removal of filth-accumulations it should be well mixed with successive layers of the matter to be removed. The dry form of application is to be preferred where masses of wet or semi-solid filth have to be dealt with.

(*d.*) For disinfection of the air of rooms, after the room has been prepared by the removal of persons and of such articles as are best disinfected by heat, and by the closure of windows and crevices, sulphurous acid gas in ample quantity may be evolved, the doors being kept closed for six hours or more. The amount of sulphurous acid required for the disinfection of a moderate-sized room can be obtained by burning one and a half pounds of sulphur (roll brimstone) in a pipkin over a small fire placed in the middle of the room, with an old tray or the like to protect the flooring. These processes should be effected by skilled persons acting under the directions of the Medical Officer of Health.

(*e.*) After measures of disinfecting a room have been taken, all wall-paper should be stripped from the walls and be burned, and the room ought to have its ceilings and walls thoroughly washed or lime-whited.

19. For detailed information on disinfection by heat,

* A solution fitted for the desired purposes may be made with half an ounce of corrosive sublimate, one fluid ounce of hydrochloric acid, and five grains of commercial aniline blue, in three gallons (a bucketful) of common water. It ought not to cost more than 3d. the bucketful, and should not be further diluted. The use of non-metallic vessels (wooden or earthenware house-tubs or buckets) should be enjoined on those who receive it, and articles that have been soaked in it should be set to soak in common water for some hours before they go to the wash.

† The removal of dangerous filth is here the object to be attained. It cannot confidently be stated that either the iron salt or any available substance will effect a true disinfection of such masses of filth as are here in question.

on hospital accommodation, on scarlatina, and on small-pox, and on questions of school administration during the prevalence of infectious disease, see the Office Memoranda and Reports on these subjects.

A NEW INVENTION IN CLOTHING.

ONE of the chief and crying problems of the day is the demand for a clothing-fabric which, possessing the maximum of warmth, shall present the minimum of weight, and shall allow a free escape of the skin-secretion under varying changes of temperature and bodily work. Coincidently with the above demands, we find one which stipulates that the material or fabric used shall be capable of being used alike for summer and winter clothing, and shall be capable, also, of being woven into other articles of domestic nature, such as are represented by bed-linen and like furnishings of the home. The majority of persons have naturally inclined to wool as the typical clothing, and certainly the teachings of health-science are largely in favour of this material as presenting us with all the conditions favourable to warmth, lightness, and durability. Woollen clothing owes its value, undoubtedly, to the peculiarity of its texture; while it has hitherto presented a marked superiority over other clothing-materials in respect of its absorbing moisture, through its well-known hygroscopic qualities, and of thus preventing chill.

Woollen clothing, then, has hitherto, and deservedly, stood *facile princeps* in respect of the qualities above detailed. Its disadvantages, however, have not been overlooked by health-reformers. If it absorbs perspiration readily, it is a material which, in consequence, increases markedly in weight. Mr. Treves, in his volume on dress in relation to health, remarks that the weight of a woollen material may be increased "from 1,000 units to 1,163 by simply exposing it for some time in a damp place." He adds that "If an individual wearing woollen clothing of any kind (which, we will assume, is quite dry) were to occupy for some time a damp room, the air of which was charged with moisture, he would leave that room with more than ten per cent. added to the weight of all the woollen garments he might be wearing. The danger of this excessive hygroscopic quality of wool is obvious, when we consider that an undergarment, for instance, charged with excessive moisture, might readily become a source of serious mischief in the way of generating chill with its countless results. Again, many woollen fabrics are made of very close texture, a feature which adds to their moisture-absorbing properties, and which gives additional weight to the clothing, while it prevents the free evaporation of skin-secretions for which a porous flannel is noted. Add to the disadvantages of wool that many persons cannot comfortably wear ordinary woollen garments next the skin, and we may readily note how and why the demand has arisen for a material which shall combine all the excellences of wool with lightness, porosity, and the power of preserving an equable warmth of body.

Within the past few days we have been greatly interested in the examination of a new clothing fabric, which bids fair to supersede woollen clothing for ordinary wear. We allude to the "Cellular Cloth and Clothing," manufactured by the Company of that name, of 75, Aldermanbury, London, E.C. This material, as its name implies, is made in a cellular texture: in cotton, in cotton combined with silk, in silk itself, and in other materials. For its production new patented machinery has been expressly made, and the resulting product, as we have said, bids fair to revolutionize the clothing question of the day. The fine meshes of the "Cellular Cloth," in the first instance, present us with a material which is eminently porous, and which permits a free circulation of air between the clothing and the skin; air itself being a bad conductor of heat, and therefore in itself an admirable protection, in so far as the conservation of body-warmth is concerned. In the second place, the porous nature of the "Cellular Cloth" permits of the free egress of the skin secretions, which, in place of being locked up in its substance, is allowed to evaporate, while cleanliness of skin is promoted by its use.

One of the best tests of the value of "Cellular Cloth," for the preservation of health against chill, is to be found in the fact that, as we ourselves have experienced, a cycling shirt of this material after a long run on the tricycle, instead of being saturated with perspiration, remains comforably dry. This proof of the value of this clothing is in itself a powerful testimony to its service for all classes of the community. The Cellular Cloth washes readily and does not shrink. As regards the comfortable nature of its wear, we can pronounce it to be absolutely non-irritating to the skin. If passed over the skin of the face this material is found to be delicate and soft, and its wearing properties are of a high order, inasmuch as it is not readily torn or injured.

The "Cellular Cloth," as we have indicated, is made in various styles, and every description of garment for both sexes, from shirts and combinations to sleeping suits and bedclothes are supplied of this material. The colours and designs are tastefully executed; and as to its adaptability for surgical bandages, we are able to testify. The durability of this material, indeed, constitutes it an admirable medium for all classes of surgical apparatus where cloth-texture is required.

We shall return to this subject in a future issue. It may suffice to add that a Prize Medal was awarded to the Cellular Cloth in 1887 by the Sanitary Institute of Great Britain, an honour we esteem to have been thoroughly deserved; and in these days of commercial depression, with home trade wrestling in the throes of foreign competition, it may be satisfactory to our readers to know that the "Cellular Cloth" is a strictly home-product, and represents the fruits of a native industry highly creditable to our own inventive genius and manufacturing enterprise.

AN advertisement reads: "Wanted, a young man to be partly out of doors and partly behind the counter, and a lady has written to ask, "What will be the result when the door slams?"

CORYZA POWDER (VIGIER).—This remedy, which is said to be greatly prized and often prescribed by French physicians, is made according to the following formula:—Finely powdered starch, boracic acid, and tincture of Siam benzoin, of each equal parts. To be used as a snuff frequently and plentifully. The *National Druggist*, in referring to this preparation, warns its readers that "powdered gum benzoin should not be used in lieu of the tincture, as is frequently done by American pharmacists in preparing snuffing powders. When the gum is used the resulting power is tenacious, packs easily, and is difficult to draw into the nostrils. The same may be said of camphor. It is far better to use the tincture and allow the alcohol to evaporate, as in this manner a granular powder is obtained, which has not the defect to which we have just alluded."

IMPORTANT ANNOUNCEMENT.

BONUSES TO SUBSCRIBERS TO "HEALTH."

Health, as our readers are aware, may be obtained of all Booksellers and Newsagents, and at the Railway Bookstalls, on the day of publication. It may also be ordered from the Publisher, 2, Paternoster-square, London, E.C., who will send the journal, post free, for a year, on receipt of postal orders for 10s. 10d.

As many of our readers who live in remote districts prefer to obtain Health from the Publisher direct, and as we are desirous of increasing the already large number of subscribers who give us a yearly order for the journal, we offer the following Free Gifts and Bonuses to all who subscribe to Health for one year or longer:—

(1.) To each Subscriber who remits 10s. 10d. to the Publisher, entitling him (or her) to receive one copy of Health, post free, for one year, we shall present a copy of Dr. Andrew Wilson's work, entitled "A Manual of Health Science" (Longmans & Co.), value 2s. 6d.

(2.) To each subscriber who remits 21s. 8d., entitling him or her to receive two copies of Health weekly, post free, for one year (or one copy for two years), we will present Dr. Richardson's "Ministry of Health" (Chatto & Windus), value 6s. The copies of Health so ordered may be posted to separate addresses.

(3.) To each person who subscribes 32s. 6d., for three copies of Health, post free, weekly, for one year, we will present the volume by Dr. Richardson mentioned above, and also the handsome, illustrated book entitled, "Studies in Life and Sense," by Dr. Andrew Wilson (Chatto & Windus), value 6s.—being a free gift of the total value of 12s.

The bonus last mentioned will also be presented to anyone who succeeds in obtaining three yearly subscribers to Health, and who remits to the Publisher the sum of 32s. 6d., together with the names and addresses of the persons to whom the copies are to be posted each week.

As the literary gifts above-mentioned constitute books containing solid and reliable information regarding health and other matters of popular scientific interest, it will be seen that the above scheme, while intended to increase our already large circulation, also offers distinct advantages to new subscribers who guarantee by their subscriptions a year's support to this journal. All communications regarding subscriptions and other purely business details connected with Health should be addressed directly to the Publisher, 2, Paternoster-square, London, E.C., and *not to the Editor*.

Our Letter-Box

"Conference [maketh] a ready man. —*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including Books for Review, Specimens of Sanitary Appliances, &c.), to be addressed to "The Editor of Health," 2, PATERNOSTER-SQUARE, LONDON, E.C. Those intended for the Publishing Office to be sent to Mr. A. P. Watt, The Publisher, at the same address.

LETTERS TO THE EDITOR.

HEALTH FOR THE PEOPLE.

Sir,—I have been much interested in the letter of "B. B. B.", published in your last issue. I think everyone must agree with him that there is a great necessity for the diffusion of plain, simple, health-knowledge among the masses. To some extent this knowledge is supplied by teaching boys and girls physiology and domestic economy in school; but what I would advocate is greater attention being paid to such teaching in *all* schools, and to such instruction being made part and parcel of our educational systems everywhere. Surely, if we attack health-problems at school by instructing the young in hygienic matters, we shall reap the reward of their greater health as adults. I cannot see how the problem raised by "B. B. B." is to be tackled or solved, save on some basis which, taking the common religious revivals of the day as their model, shall carry the Gospel of Health into the slums. I often think that if one-tenth part of the energy devoted to preaching evangelistic religion were devoted to diffusing a knowledge of health-laws, we should raise the poor in the social scale more rapidly than is now the case. Only we should require, for due success in such a health-mission, educated men (and women) able and willing to evangelize in the interests of hygiene—and that is essentially the difficulty, namely, where are we to get our workers? The middle classes are lectured to the full. Will no philanthropist give us funds to pay able workers to devote time and trouble to this great work?—I am, yours, &c.,

Philos.

Sir,—Everyone must feel the importance of the above subject who thinks how much happier the world would be could we escape the misery which people entail on themselves or their descendants "while they pervert pure Nature's healthful rules to loathsome sickness." We shall owe a debt of gratitude to "B. B. B." if his letter should prove a stimulus to effort in teaching these rules to all.

Nature herself has taught us much. We do not now look upon an epidemic disease as a mysterious judgment of Providence, to be averted by penance; the Black Death, the Sweating Sickness, the Great Plague, the Cholera have at last impressed on our minds the lesson that disease is the inexorable consequence of breaking the law of Nature, a power which never remits a penalty. Many of us now acknowledge the need for sanitary laws, and for hygienic teaching; but very many more have not a single idea on the subject. How are they also to be taught that their ignorance of the laws of health is a wrong against their own lives and those of others? "B. B. B." wishes to discover a method of forming into classes the poorer population of our large cities. The greater part thereof is quite content to practise the *un*wisdom of the past, and, short of a bill for compulsory attendance, the difficulty would be to induce working-people to trouble themselves about it. In a large city of 500,000 inhabitants, how many would he consider in need of teaching? Has he thought of the difficulty there would be in finding teachers? Then, he properly insists on reiteration in the lessons: I fear he would find British audiences quite like the Athenians of old in their desire for something new. I agree with him that the course should be short, but I am not at all sure that it would be a good plan to announce an examination. Whether voluntary or not, whether written or oral, I suspect the mention of such an ordeal would deter many from attending a class.

I should think that much good might be done by a series of popular articles in one of the weekly newspapers which have such a large circulation among the working-classes, and might arouse in them a desire for further information, thus disposing them to attend classes. A much more powerful persuasive to attendance than examinations would be the offering of prizes for the best examples of the application of the rules taught. This plan has been adopted with excellent effect in classes for the teaching of domestic economy, cookery, and dress-making to working girls and women. Some ingenuity would be needed to find a suitable subject for competition, but such could be got, *e.g.*, an example of a dinner combining the greatest possible nourishment with the least possible cost, or some problem in ventilation or drainage. In some districts we have well-attended mothers' meetings, where help is given in cutting out or mending garments. There could be no better opportunity of getting hold of the women there, and giving valuable lessons to those on whom the health of households so largely depends. Much good has resulted from lectures on health given in connection with Young Men's or Young Women's Christian Associations. Indeed, we must look to the young for marked improvement. The instruction, both theoretical and practical, given in day-schools, both in domestic economy and cookery, is a great benefit

"ELECTRICITY IS LIFE."
(TRADE MARK.)

PULVERMACHER'S
WORLD-FAMED
GALVANIC BELTS,

FOR the CURE of NERVOUS DISEASES.
HAVE RECEIVED TESTIMONIALS from
THREE PHYSICIANS to
HER MAJESTY the QUEEN,
THE ACADÉMIE DE MÉDECINE of Paris and
FORTY MEMBERS of the
ROYAL COLLEGE of PHYSICIANS of LONDON.

RECENT TESTIMONIALS.

GALVANISM *v.* SLEEPLESSNESS and NERVOUS IRRITATION.

Brentwood, Essex, June 11, 1888.

Dear Sir,—I am thankful to tell you that your Galvanic Combined Band has quite cured me of a nervous restlessness and sleeplessness from which I had suffered for many years. My health also is much improved in every way; and with much gratitude, yours sincerely, S. BARKER.

Mr. J. L. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* NEURALGIA and GENERAL DEBILITY.

9, New Barn-street, Rochdale, 29th May, 1888.

Dear Sir,—It is with very great pleasure that I inform you of my daughter's complete recovery.

It is now three months ago since I purchased your galvanic appliance for Neuralgia and General Debility for my daughter, who had been under five different doctors, but nothing gave her relief. However, your treatment has effected a speedy and complete cure; and hoping that someone may benefit from reading this testimonial. Yours truly, ANNIE SHAW.

Mr. J. L. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* NERVOUS DEBILITY and PAIN IN THE BACK.

Lawn Farm, Gillingham, Dorset, May 25th, 1888.

Dear Sir,—I am pleased to certify that your Galvanic Belts have done me an immense amount of good.—Yours respectfully, (MRS.) J. DOWDING.

Mr. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* LUMBAGO.

147, Avenue-Parade, Accrington, May 14th, 1888.

Gentlemen,—It affords me pleasure to bear testimony to the great benefit I have derived from wearing your Galvanic Belt for Lumbago, which I purchased some weeks ago.

I have been a great sufferer, and I could not have believed that so great a change could be effected in so short a time.

My general health is also greatly improved.—Yours truly,

Messrs. Pulvermacher & Co., 194, Regent-street, W. T. SIDGREAVES.

GALVANISM *v.* SCIATICA.

35, George-street, Cathays, Cardiff, May 13th, 1888.

Sir,—Some years ago I bought one of your Galvanic Belts, as I was suffering from Sciatica in a very bad form, and was laid up for about nine months.

I am pleased to say, after wearing your appliance for a short time, I derived great benefit, and ultimately it quite cured me, and I have been able to work ever since.—Yours truly, T. FRY.

Mr. J. L. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* INDIGESTION AND NERVOUS DEPRESSION.

Tonypandy, Pontypridd, May 4th, 1888.

Dear Sir,—Some time ago I purchased a combined Belt from you. I was then suffering the miseries of indigestion, and was very weak, depressed, and languid. To eat was a trouble, and to walk two miles wearied me.

After using your Belt for a fortnight or so, the indigestion was almost entirely gone, and my strength and general tone rapidly improved. I then purchased your Battery to use with the Belt, and with very beneficial results.

I can now eat, walk, and work with great freedom; and, by God's blessing, your appliances have certainly wrought a most happy change in me. I confidently recommend your treatment to other sufferers.

Yours very sincerely, (Rev.) F. D. DENT, Wesleyan Minister.

Mr. J. L. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* SLEEPLESSNESS AND NERVOUS EXHAUSTION.

Castle-street, Bolsover, May 1, 1888.

Dear Sir,—I have no hesitation whatever in saying that your treatment has been a great comfort and help to me. I have worn the Belt regularly for some time, and the result has been a marked increase of strength and vitality, and I also have enjoyed more natural sleep at nights than for a long period before.—Yours faithfully, L. PARKIN.

Mr. J. L. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* NERVOUS EXHAUSTION.

The distressing symptoms of Nervous Exhaustion and Debility are speedily removed by means of PULVERMACHER'S world-famed GALVANIC BELTS, which are so arranged as to convey a powerful electric current direct to the affected parts, gradually stimulating and strengthening all the nerves and muscles, and speedily arresting all symptoms of waste and decay.

ADVICE PERSONALLY or by LETTER, free of charge

FOR FURTHER TESTIMONIALS, both Medical and Private, see new Pamphlet, "GALVANISM: NATURE'S CHIEF RESTORER OF IMPAIRED VITAL ENERGY," post free on application to

J. L. PULVERMACHER AND CO.,
GALVANIC ESTABLISHMENT,
194, REGENT-STREET, LONDON, W. (nearly opposite Conduit-street).

to girls, some of whom could never learn anything of them in their miserable homes. I am almost ashamed of the inadequacy of these suggestions for so teaching hygiene that, as "B. B. B." says, we may reduce the national death-rate. In "the corners of our large cities" are thousands of wretched homes which no sanitary inspector can render healthful. How to reach the unfortunates there I cannot tell. Can we ask them to attend lessons on personal and household cleanliness when soap and soda are luxuries only to be got at the expense of bread; or on ventilation, when they shiver with closed door in their "looped and windowed raggedness" in a hot and poisoned atmosphere? When the struggle for mere existence for them becomes less hopeless, we may hope to reform those habits which are a danger, not to their own lives only, but to those of all.—I am, &c.,

B. F.

THUNDERSTORMS AND LIGHTNING ACCIDENTS.

SIR,—As the season of thunderstorms and lightning accidents is now approaching, I hope you will kindly allow me to make known through your columns the fact that, in the interest of science, I am very desirous of obtaining authentic information concerning lightning accidents, whether fatal or otherwise. I should therefore esteem it a favour if some of the many friends of humanity among your readers will assist me to investigate these phenomena by sending me such particulars of accidents of this nature as they may have personal or reliable knowledge of as soon after they occur as possible. Of course, electrical and physiological details are what we most require, but general information is often very valuable, and will be gratefully received.—I am, yours, &c.,

H. NEWMAN LAWRENCE, A.S.T.E.

24, *Regent-street, London, S.W.*

QUERIES AND ANSWERS.

REPLIES: GENERAL, SANITARY, AND MEDICAL.

[Readers of HEALTH will kindly note that when back numbers of the journal are desired, the letters containing such requests and stamps for the numbers should be addressed to the PUBLISHER of HEALTH, 2, Paternoster-square, London, E.C., and *not to the Editor.*]

VALE.—Follow out advice given to "Hereward" in the present number of HEALTH regarding the use of Cascara Cordial and appropriate diet, and you will find these recommendations to cure your ailment. Continue the Dahl's Cakes, and avoid cheese, tea, coffee, and like indigestibles.

MERCHANTMAN.—Wear a suspensory bandage regularly, and bathe the parts night and morning with cold water. Avoid constipation (see advice given to "Vale" above) and over-exertion.

SPERO.—We advise you to leave the part alone, and to avoid all irritation. Wear a bandage, by all means. You might try the effect of bathing the part night and morning with cold water to which a little Hazeline has been added. There is no danger of any ulterior effects arising from the injury.

M. H. J.—1. About a teaspoonful of glycerine is the proper amount for a dose—less if possible; add this to about a wineglassful of the cream. The whisky may be omitted. 2. We certainly do not regard the mixture you name as a "panacea"—there is no such panacea for the disease you name. The dose would be half a teaspoonful of glycerine to half a teaspoonful or so of the other ingredient; but the mixture would be very nauseous. 3. The extracts you quote were taken from an American journal. Your best plan is to rely upon change of climate and the taking regularly after food of Scott's Pure Cod Oil Emulsion with Hypophosphites, a dessertspoonful after meals, thrice daily. This is more than equal to any glycerine treatment.

VERITAS (Manchester).—What you name is due merely to nervousness, and not to any organic disease. The medical examination you underwent proves this much. We advise you to limit your exercise, and not to "over-tire" yourself, as you have been in the habit of doing; while you must take care that your diet is of generous character. Try the effect of taking fifteen drops Fer Bravais after your meals, in water, thrice daily, and if not cured, write again. It is probable all you need is a tonic. If the specks before the eyes persist, and digestive symptoms continue, cease taking the tonic, and employ the remedies recommended to "Hereward" in the present number.

VERITAS (Edinburgh).—1. Warner's Safe Cure is a valuable remedy in many kidney affections. It is free from all injurious

drugs. 2. Try Pitkeathly Water (advertised in our pages), the Lithia variety, as a beverage. 3. Rest, especially after meals, careful attention to diet, and avoidance of indigestible foods. As a tonic, try the Fer Bravais above recommended to "Veritas" (Manchester).

B. D. E.—1. Yes; for many debilitating diseases. 2. Defective assimilation is the cause of the symptoms named. Attend to the food, which should be of light character, and give a tumbler of hot water as a drink between meals, twice daily, and at bedtime also. Vichy Water should also be taken and alcohol avoided. 3. Wiser to make intermissions; the habitual use of any drug is unwise, and a healthy person should not require even an excellent saline such as that you name regularly.

Inquirer.—1. Not by hard work certainly. Natural to many persons. No need to fear any ill consequences. 2. Massage cannot prevent paralysis certainly; it is serviceable in restoring muscular tone and power. Read the book on "Massage," by Dr. Murrell, published by Mr. Lewis, 136, Gower-street, London, W.C.

Belphegor. — Try the antipyrin tabloids made by Messrs. Burroughs, Wellcome & Co., Snow-hill, London, E.C. Each tabloid contains five grains of antipyrin.

Loona.—We only send address of physicians and surgeons on receipt of stamped addressed envelope. Send such, and we will forward the address you require,

G. A.—Try the following as a cure for boils: Sugar of milk, half an ounce; sulphide of lime, twenty-four grains; mix, and take five grains, or as much as will cover a sixpence, every four hours.

L. A. G.—Burroughs, Wellcome & Co., Snow-hill Buildings, London, E.C., are the makers.

E. O.—For the teeth and gums use Dr. Pierre's Eau Dentifrice and Tooth Powder. The use of these preparations will arrest decay of the teeth.

Edgar.—Try washing the hands with Bayley's Soap and tepid water, and use thereafter a dusting-powder composed of powdered oxide of zinc, one ounce; powdered camphor, one drachm; and starch, two ounces. Mix. Label: "The Dusting Powder, for external use only." Woolley's Sanitary Rose Powder should be used alternately with the dusting powder.

O. P.—A hair lotion adapted to promote growth is made as follows:—Tincture of nux vomica, three drachms; distilled vinegar, two and a half ounces; tincture of capsicum, one drachm; tincture of cantharides, six drachms; spirits of rosemary, one ounce; rose water to make up six ounces. Rub a little into the roots of the hair each morning.

Mabel L.—You should try the plan of inhaling through the nostrils at night the vapour of hot water to which a little of Stern's Pumiline has been added. For description of this preparation see article in Health, No. 252.

Leith.—Read the pamphlet "A Lecture to Young Men" (post free, for 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.): attend carefully to what is there said regarding diet and the use of tonics.

A. M. M.—Use the "Pommade Trichophile" of the French Hygienic Society, 56, Conduit-street, Regent-street, London, W. (advertised in our pages); it is an excellent remedy for scurf. Wash the hair once a week with Bayley's Soap.

A. P. W.—A good lotion for blackheads is made by mixing three drachms of sulphur, four drachms of glycerine, and four ounces of rectified spirits. This should be rubbed into the skin at night.

Soso.—Try a tepid bath every morning, and wash regularly with Bayley's Spermaceti Soap. There is nothing radically wrong, or which attention to your skin will not cure. Internally, for a time, take fifteen drops Fer Bravais in water after your meals.

Editha.—Use Woolley's Sanitary Rose Powder. Wash the parts night and morning with soft water, and look to the underclothing.

A. X.—Read the pamphlet, "A Lecture to Young Men" (post free for 1s. 1d. from Mr. Renshaw, 356, Strand, London, W.C.), for full information.

E. R. W.—If the person is alleged to have been cured of such a disease as consumption, you should simply inquire into the evidence on which the existence of that disease was founded.

Nipper.—Attend to the following rules: Avoid tea and coffee, and take Scott's Oat Flour to breakfast and supper; this, with twenty drops of Cascara Cordial, taken in water once or twice daily, an hour before food, will probably relieve you greatly. Avoid much flesh-food, and take your meat mostly in the form of strong soups, for making which use Brand's Beef Essence. White boiled fish, stewed fruits, milk puddings, &c., may also be tried.

M. G.—If you send us stamped addressed envelope, we will be glad to forward the address of a specialist who removes superfluous hairs by means of electricity. The operation is painless, and is the only certain method of removing hairs.

Ecceus.—Try the effect of simply applying to the parts a lotion composed of bicarbonate of soda, one drachm; and glycerine, an ounce and a half. Wash frequently with Bayley's Soap and tepid water.

R. F.—The remedies to which you allude could only be used by a physician who was in the habit of seeing the patient regularly.

Hereward.—The "grains" you name might be tried, but we think you would find half a Dahl's Cake (advertised in our pages) taken morning and night in your tea or coffee would suit your case. Try this, and limit your tea and coffee as much as possible. Substitute Scott's Midlothian Oat Flour for tea at night, and between your meals, once daily, take Cascara Sagrada. The most convenient form is in the shape of the tabloids made by Messrs. Burroughs, Wellcome & Co., and to be had of any druggist. This will promote and establish digestive action, which care in diet will render permanent. Avoid excess of animal food, and take plenty of vegetables and stewed fruits. If these measures do not suffice to cure you, by all means write again.

Gland.—In our view of matters, your ailment was probably directly caused by the blow and indirectly favoured by a lack of tone in the system. We should recommend you simply to take a teaspoonful of the Syrup of the Hypophosphites in a wineglass of water, twice or thrice daily, after your meals, as a tonic likely to brace you up. Take no other medicine. If the hair troubles have arisen from your general weakness, as is quite likely, the tonic treatment will, in its turn, improve the hair growth. Assist the latter by the use of a stimulant lotion, such as that ordered to "O. P." in the present number of Health. Use a soft brush only, and wash the hair once a week with Bayley's Spermaceti Soap. Let us hear from you the result of this advice.

A DESERVED WORD OF PRAISE.

From the "Woodbridge Reporter."

We have always been very particular about making editorial comment upon the wares of advertisers who make use of the columns of our paper. When we know of anything that is worthy of special mention, we are frank enough to say so, but until we are satisfied we cannot endorse them. This is especially the case with the large number of proprietary medicines which are placed before the public through the public prints. We know there is a prejudice against the use of what are known as unauthorized proprietary medicines, and in many cases the prejudice is well founded, but there has lately come under our notice a case which, upon investigation, we have decided to give to our readers. Many of them will doubtless remember the severe illness of the little three-year-old son of Mr. Robert H. Durham, of 3, Warren-hill, Woodbridge, and his remarkable recovery. One year ago last March the little fellow was taken ill with dropsy. Large water sacs formed over his eyes, his legs were swollen to the size of a full-grown man, and his whole body puffed up to an alarming extent. Said Mr. Durham to the writer: "For eight weeks he was under the doctor's care, but without any beneficial result. During this time he was confined to ips bed, his stomach would retain no food, and we were compelled to keep him wrapped up in blankets and close to the fire, in order to keep him warm and alive. His water was heavy with albumen, and frequently after boiling it became as hard as the white of a cooked egg. Several doctors were consulted, but all agreed that he could not live. I finally decided to give him Warner's Safe Cure, which I was informed could be had of all chemists, and the immediate result was an increase in the flow of water. We continued giving him the Safe Cure, and the dropsy gradually disappeared, his appetite returned, and he was brought back to health."

In verification of what Mr. Durham had said, we were informed by Mr. Edward J. Eaton, M.P.S., of the Pharmacy, Woodbridge, that the case came under his personal notice, as he supplied him with the Warner's Safe Cure. Said Mr. Eaton: "The doctors had given up all hopes of the boy's recovery, as dropsy had set in, when he was put upon Warner's Safe Cure, and was soon running around, to the surprise of all his friends. I have sold large quantities of this medicine, and know of lots of people who have derived great benefit from its use."

As we said in the beginning of this article, we are not in the habit of commending patent medicines, but when we meet a case like the one above narrated, we believe it to be our duty to let the public know of it, and to place the credit where it properly belongs.

C. P. PARSONS.—Try Harness's Xylonite Truss for rupture, 52, New Oxford-street, London, W. It is serviceable, readily washed, and can be assured an absolute fit.

G. G. MEARS.—Try the Pitkeathly Water (advertised in our pages) as a cure for the symptoms named. The variety of this water combined with Lithia will suit you.

E. CLARE.—Give Mellin's Food only to the child. Starch is absolutely unsuitable for it.

NEWTON. — Try the ointment recommended to "Aggie" in HEALTH, No. 270. If you drink coffee, avoid that beverage, as it is often associated with certain forms of skin-irritation; and, for a time, take plenty of vegetable food as part of your diet. A tepid bath each morning will also be likely to do good. Write again if not cured.

V. D. V.—If the hair-papilla is pulled out or destroyed, the hair will not grow again, but pulling out a hair does not necessarily destroy the root. The only sure method of removing hairs is by electricity: a painless means. We can send you address, if desired, of a specialist who removes hairs in this way, on receipt of stamped addressed envelope.

J. FRANCIS.—You have evidently ruptured one of the structures of the part named. Send us a stamped addressed envelope, and we will forward address of a surgeon whose advice you should take, as you may thereby prevent future pain.

B. M. M.—If you apply to Mr. Harness (52, New Oxford-street, W.) you will be furnished with full particulars regarding the treatment you name.

E. L. TAIT.—Give the child Henderson's "Wheatena" Biscuits (see notice in last week's HEALTH) as a bone-forming food.

OTIS. — Change your socks frequently, and wash the feet with tepid water and Bayley's Soap. Thereafter dust Woolley's Sanitary Rose Powder on the feet (see advt. in our pages).

E. BAILEY.—We recommend you to drink Vichy Water morning and night for a time. This is a simple remedy likely to benefit you very much. Avoid excess of flesh food, of course.

PRONO.—The closet is a defective one. Replace it by one of Twyford's "Unitas" type, which is simple and not likely to get out of order.

A SUBSCRIBER [Will please use in future a more distinctive cognomen].—We do not approve of any such remedies. If you will describe your wants to us, we will be glad to reply to you in these pages.

ORONTES.—A book such as "The Ladies' Physician," published by Cassell & Co., would be likely to suit you.

WILLIAMSFIELD.—In your case take the mineral water less frequently than is prescribed for gout. A little taken morning and night should suffice for your purpose.

ISLE OF ARRAN.—1. Leads to no special diseases, and is only a symptom of want of tone, as a rule. 2. Possibly the long walk and over-exertion was the cause. 3. Yes, but probably a warm bath and a hot drink, followed by free perspiration in bed, would have accomplished the purpose more agreeably than the mustard. You should take as a tonic a teaspoonful of Syrup of the Hypophosphites in a wineglass of water twice daily, after your meals.

TO MAKE A GOOD PLAIN CAKE.—Mix well together one pound of flour, a full teaspoonful of Borwick's Gold Medal Baking Powder, a little salt and spice, and a quarter of a pound of sugar, rub in a quarter of a pound of butter, add 6 ozs. of sultanas, 2 ozs. currants, and 1 oz. candied peel, moisten the whole with two eggs and half a teacupful of milk previously beaten together, bake in a quick oven very thoroughly.

RUBY.—1. See advice given to "Girlie" in HEALTH, No. 269. 2. See article on the care of the skin and skin-remedies in HEALTH for last week. 3. Yes; wash the face with cold soft water after bathing, and avoid exposure to the sun. 4. Nothing, except removal of the hairs by electricity.

SCOTT'S EMULSION

OF PURE COD LIVER OIL

AND HYPOPHOSPHITES

Is three times as efficacious as the plain Oil.

It is almost as palatable as milk.

It does not nauseate or produce a loathing for food like the plain oil.

The Hypophosphites and Oil are so skilfully combined, that they are much more potent in building up flesh and strength than if taken separately, and **SCOTT'S EMULSION** is to-day the best remedial agent for the cure of

CONSUMPTION, CHRONIC COUGHS, BRONCHITIS, ANÆMIA, WASTING DISEASES OF CHILDREN and GENERAL DEBILITY.

Physicians universally prescribe it in preference to the plain oil, having seen its remarkable curative effects.

Any chemist can supply it at 2/6 and 4/6.

RELIEF TO SUFFERERS

FROM

INDIGESTION, FLATULENCE, CONSTIPATION.

A Natural Remedy. No Drugs.

DAHL'S DYSPEPSIA CAKES

(PANIS DIETETICUS.)

Recommended by several LEADING MEDICAL MEN of the Day.

"The Cakes are evidently prepared from the inner tegumentary portions of grain, which are peculiarly rich in lime and potash salts, in muscle-forming matters, in certain digestive ferments, and which contain a not excessive amount of fibre of an indigestible character. The effect of these various ingredients is to stimulate the muscular and secreting actions of the alimentary canal, thus rendering the preparation valuable in those cases of dyspepsia which are accompanied by constipation, and where, consequently, increased peristaltic action is needful.

"The Cakes contain a very large proportion of readily available and highly nutritive material, and can be confidently recommended as a safe and useful adjunct to an ordinary dietary. "GEO. R. TWEEDIE, F.C.S., F.R.M.S.'

These Cakes have been tested in the most ACUTE cases of Constipation and Indigestion, with VERY SATISFACTORY results, giving PERMANENT NATURAL RELIEF. They can be taken to Breakfast, Lunch, and Tea, and greatly relished. Free use of Dahl's Cakes will make life worth living to many.

To be had at all Chemists. Sample Box, 1s.; 2s. 6d., Post Free.

DAHL'S AGENCY, 41, EASTCHEAP, LONDON.

WOOLDRIDGE'S TINCTURE

FOR

GOUT, RHEUMATISM AND NEURALGIA.

OF ALL CHEMISTS.

SUMMER TOURS IN SCOTLAND.

GLASGOW and the HIGHLANDS.

(Royal Route viâ Crinan and Caledonian Canals.)

THE ROYAL MAIL STEAMERS, Columba, Iona, Fusilier, Grenadier, Chevalier, Gondolier, Lochawe, Mountaineer, Pioneer, Glengarry, Clydesdale, Linnet, Claymore, Clansman, Cavalier, Staffa, Glencoe, Inverary Castle, Islay, Lochiel, Fingal, Lochness, Ethel, Gladiator, Udea, and Countess.

Sail during the Season for Kyles of Bute, Ardrishaig, Islay, Oban, Fort William, Inverness, Staffa, Iona, Glencoe, Loch Awe, Tobermory, Portree, Gairloch (Loch Maree), Ullapool, Loch Inver, Stornoway, Thurso, &c., affording Tourists an opportunity of visiting the magnificent scenery of Glencoe, the Cuchullin Hills, Loch Coruisk, Loch Maree, and the famed Islands of Staffa and Iona. Official Guide Book, 3d. Illustrated 6d., cloth gilt 1s. Time Bill, with Map and Tourists' Fares, free by post from the Owner, DAVID MACBRAYNE, 119, Hope-street, Glasgow.

ESTABLISHED 1825.

NEAVE'S FOOD

FOR INFANTS, INVALIDS, AND THE AGED.

BEST AND CHEAPEST.

"Fer Bravais" The Finest Tonic.

FOR POORNESS OF BLOOD, ANÆMIA, AND GENERAL WEAKNESS.

LANCET.—"*Colloid hydrate*" *of iron.* "*Neutral and tasteless solution.*" "*A beautiful and interesting preparation.*"

BRITISH MEDICAL JOURNAL.—"*A remarkably valuable preparation.*" "*Has all the good effects of iron without producing constipation or disturbing the digestion,*" *and* "*does not blacken the teeth.*" "*An eminent London Physician writes to us,* 'I HAVE TRIED IT EXTENSIVELY, AND HAVE GIVEN IT IN CASES IN WHICH NO OTHER FORM OF IRON COULD BE TAKEN. IT IS *the best preparation of iron* I HAVE MET WITH.'"

Sold by all the principal Chemists and Druggists, in Bottles in portable Card Cases, with Drop Measure complete, sufficient for six or three weeks' treatment.

ESTABLISHED OVER SIXTY YEARS.

PULLARS' DYE-WORKS, PERTH.

By Appointment to Her Majesty the Queen, 1852.

J. PULLAR & SONS intimate that in their Works there is every convenience and appliance for Cleaning and Dyeing in the best style the varied and expensive materials in use for Ladies' and Gentlemen's wear, as well as for Household purposes. They direct attention to the superiority of their workmanship, and to the regularity and speed with which articles are returned.

RECEIVING OFFICES IN

LONDON { 18, CHENIES-STREET, W.C.
8, SLOANE-STREET, S.W.
64, FINSBURY-PAVEMENT, E.C.

BRIGHTON—152, WESTERN-ROAD.

And Agencies throughout the Kingdom.

Addresses and large Catalogue Post Free on application to PULLARS' DYE-WORKS, PERTH.

COMPLETE ARRANGEMENTS FOR THE PARCEL POST.

ONE BOX

OF

CLARKE'S B41 PILLS

IS WARRANTED TO CURE

All ailments of the Urinary Organs (acquired or constitutional), Gravel, and Pains in the Back.

GUARANTEED FREE FROM MERCURY.

Sold in Boxes, 4s. 6d. each, by all Chemists and Patent Medicine Vendors throughout the World; or sent to any address for sixty stamps by the Makers

THE LINCOLN AND MIDLAND COUNTIES DRUG COMPANY, LINCOLN.

Wholesale Agents: BARCLAY & SONS, London; and all the Wholesale Houses.

CONTINENTAL SPAS.—W. Schacht & Co., Deutsche Apotheke, 26, Finsbury-pavement, E.C., will be glad to give all necessary information about the following Spas:—

CARLSBAD.—The famous Spa for the treatment of the various diseases of the liver, stomach, kidneys, and intestines, diabetes, gout. Extensive walks. Lovely scenery. English Church. New Grand Theatre. Opera. Concerts. Open all the year round.

NEUENAHR, Ahr Valley, near Coblentz. For the effective treatment of abdominal disorders and their consequences—gout, rheumatism. Unrivalled for the cure of diabetes. Every comfort and first-class attendance at the Kur Hotel. Cricket, croquet, and lawn-tennis grounds.

TEPLITZ.—The oldest Spa in Europe. Especially indicated in gout, rheumatism, paralysis, chronic neuralgia, ischias, and in those protracted ailments consequent on musket shots and sword wounds. Mineral, moor, and douche baths. Electricity. Massage. Concerts, theatre. Open all the year round.

GREAT BODILY STRENGTH.—PEPPER'S QUININE AND IRON TONIC.—By infusing new life and strengthening the muscular system.

GREAT NERVE STRENGTH.—PEPPER'S QUININE AND IRON TONIC braces up the nervous system, and increases the strength of the pulse.

GREAT MENTAL STRENGTH.—PEPPER'S QUININE AND IRON TONIC, by its supporting influence on the body and nerves, repairs the ravages caused by over-taxing the brain power.

GREAT DIGESTIVE STRENGTH.—PEPPER'S QUININE AND IRON TONIC strengthens the stomach, stopping sinking sensations, removes indigestion, heartburn, palpitation, &c. Bottles, 16 doses, 2s. 6d.; next size 4s. 6d. Sold everywhere. Insist on having PEPPER'S.

PEPPER'S TARAXACUM and PODOPHYLLIN. A fluid combination for derangement of the liver, particularly when arising from slight congestion. By gently stimulating the action of the liver and slightly moving the bowels, the heavy drowsy feeling, headache, pain beneath the shoulders, at the chest after eating, unpleasant taste in the mouth, and manifold other indications of dyspepsia, are removed. Bottles, 2s. 9d. Sold by all chemists.

"SULPHOLINE LOTION."—Clears off all imperfections in a few days. Spots, Blemishes Irritating Objectionable Appearances, Redness, Roughness, Tan, Uncomfortable Skin Disfigurements, &c., however obstinate, entirely fade away, leaving the Skin smooth, transparent, supple, natural, and healthy. Perfectly harmless. Sulpholine is delightfully fragrant, cooling and refreshing: counteracts effects of weather, softens, and preserves. Bottles, 2s. 9d. Sold everywhere.

LOCKYER'S SULPHUR HAIR RESTORER is the safest and best. In a few days it gradually deepens grey hair to a perfectly natural shade. Lockyer's surpasses the effect of costly washes. Never disappointing. Guaranteed harmless. Large bottles, 1s. 6d. Sold everywhere.

MASON'S EXTRACT OF HERBS

For the Immediate Production of

BOTANIC BEER,

A Non-intoxicating Beverage,

COMPOSED OF

YARROW, DANDELION, COMFREY, AND HOREHOUND.

ONE TABLESPOONFUL MAKES A GALLON.

Full of Body and Flavour, with a Creamy Head like Bottled Ale, the most perfect substitute for Alcoholic Drinks ever discovered, for either Summer or Winter use.

Sold in Bottles, at 6d., 1/-, 2/-, and 5/- each, with directions.

Sole Inventors & Manufacturers:

NEWBALL & MASON,

MANUFACTURING CHEMISTS,

Park Place, Park Row, Nottingham.

SPECIAL.—A Sample Bottle—enough to make Six Gallons—sent, carriage paid, to any Address, for 9 Stamps.

AGENTS WANTED. APPLY FOR TERMS.

HENDERSON'S

PERFECT FOOD BISCUITS

(PATENTED).

INVALUABLE AS LUNCH BISCUITS.

EASILY DIGESTED. VERY NUTRITIOUS.

Extract from Analysis and Report by THOS. W. DRINKWATER, Ph.D., L.R.C.P., F.C.S., &c., Lecturer on Chemistry, School of Medicine, Edinburgh:—

"I am of opinion that **these Biscuits contain the ingredients of a perfect dietary, combining all the advantages of a mixed diet,** and supplying the necessary elements, and in the proper proportion, as required for the nourishment and maintenance of the human body."

May be had of any Grocer or Italian Warehouseman.

SAMPLES SENT GRATIS ON APPLICATION TO THE MANUFACTURERS,

SIMON HENDERSON & SONS, Edinburgh.

Printed for the Proprietor by HENDERSON, RAIT, & SPALDING, at 3 and 5, Marylebone-lane, Oxford-street, in the Parish of Marylebone, in the County of Middlesex, and Published by ALEXANDER P. WATT, at No. 2, Paternoster-square, London, E.C.